

FARMER'S ADVOCATE

AND HOME JOURNAL

THE ONLY WEEKLY AGRICULTURAL PAPER IN WESTERN CANADA

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SEPTEMBER 4, 1907

WINNIPEG MANITOBA

XLII, NO. 780

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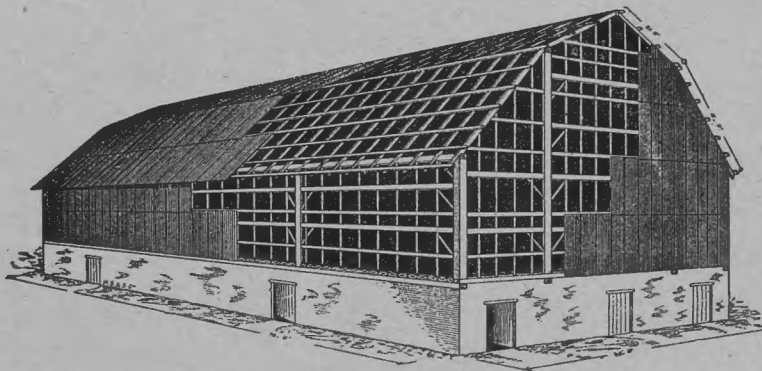
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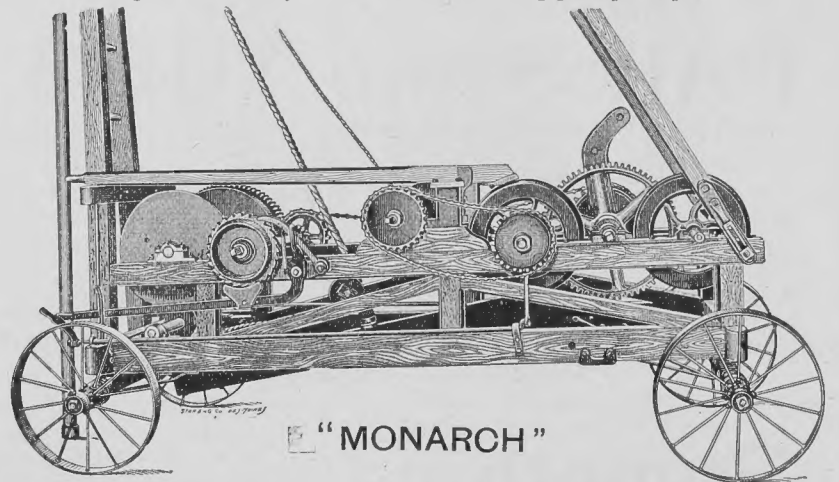
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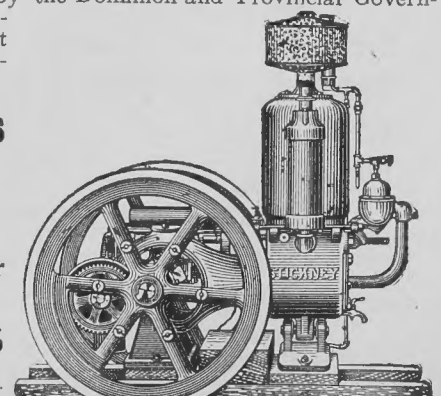
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Sept. 4, 1907

WINNIPEG, MANITOBA.

Vol. XLII. No. 780

EDITORIAL

The riddle now is will the frost keep off until after the middle of September, but nobody is allowed to make a guess until time is up. With about fifty million dollars worth of wheat that might be spoiled by frost, it is no wonder the majority of the population becomes anxious when the mercury falls below 40.

* * *

Every thing points to the need of the practice of strict economy. We may be fortunate and escape more frosts but a large amount of the crop is in a precarious condition. Those who have not invested in more land, who have arranged to do without additional machinery or buildings, who have foregone the pleasure of additional household comforts will have less to worry them than if they had counted upon a full crop. Economizing, however, does not consist wholly in doing without certain things; it more properly consists in making the best use of and taking care of what we already have. The waste upon our farm of articles of utility through misuse and abuse is something appalling and the art of economizing by getting every last cent out of a crop by feeding it or its screenings to stock is not yet reduced to the same science as it must be to make the most out of the farming business. The lesson of the meat packers should not be so soon forgotten. Farmers might also learn to make a profit out of their waste.

The Grain Shippers and the Railway.

With the increasing regulations designed to safeguard the interests of all concerned in the grain trade, there does not appear to be a lessening of difficulties in the trade, largely, we suppose, because of the increasing volume of it.

"I loaded a car of wheat well up to its capacity and know by the outturn of a similar car shipped previously that I got short weight, getting settlement for a little over eight hundred bushels for the last car and eleven hundred and forty-five for the first. The wheat was not weighed but it was a 66,000 lb. car and it was loaded to its capacity. When it was loaded there were no leaks and everything was in order. Would I have had a better claim on the railway company if I had weighed on the town scales before loading? If I can recover damages, how should I go about it?"

This is typical of a lot of letters that reach us and the officials engaged in the regulation of the grain trade problems, such as the chief warehouse commissioner, the chief grain inspector, the government shippers' agent and possibly, to the railway authorities and commission men.

The first remark we wish to make about such letters is that they should contain more details that are to the point, such as the date of shipping, number of car, exact height, compound with loading time and whether loaded at a siding or where there is an agent. Another point, and as this is an article intended to put shippers upon the shortest way to a settlement of their troubles we wish to be plain. Send these details to either the commission man who sells the wheat or to the chief grain inspector, Mr. Horn, the warehouse commissioner, Mr. Castle, or the shippers' agent, Mr. D. D. Campbell, whose offices are in the grain exchange building and as their work is of very much the same nature they assist each other where their work overlaps. When once

a case is given over to these officials the complainant may depend upon it being followed to the end.

The case under discussion illustrates some of the difficulties in the way of getting settlements. Each car has to be dealt with separately and our correspondent has given no rotation of the height of the wheat in the car, nor of its weight at the local point, nor of the number of the car, hence, there is very little to base a claim upon. At the conference of grain interests in Winnipeg in June, Mr. Shaw of the C. N. R., brought up the question of having the grain act amended to make it incumbent upon railway companies to stamp the inside of the cars in inches and half inches and to have the height of the grain noted when the car was loaded. A similar measurement is now made at Winnipeg and Fort William and with a sample of the grain in the inspector's office, a close estimate can be made to the contents of the car. Mr. Shaw's suggestion should have been acted upon, as the more safeguards the public have the less should be the loss, and the arrangement would very materially assist in detecting leakage.

There is in the unsatisfactory system of settling or evading claims upon the part of the railway companies a suggestion that the grain growers or some agricultural society make a test case for the determining of the responsibility for certain leakages and to determine whether or not certain evidence is sufficient to base a claim for damages. Under present arrangements if a car is loaded at a siding, the railway company will not undertake any responsibility for it until it is pulled down to their first station and sealed by their agent, a manifestly unfair arrangement for the shipper, since he has no means of protecting his grain in the car upon the railway companies' property nor no power to deliver the car over to the agent. Nor will claim agents entertain a claim if they have a settlement in their possession from their yard masters or other reliable persons that the particular car under discussion arrived at the yards in good condition, hence, a car might leak for several hundred miles and be fixed up before arriving at its destination or divisional point, when it would be reported intact and the claims agent would have contradictory evidence. The duty of claims agent is to protect a railway company from expensive charges for loss and damages within the law as it exists and the fact that claims are so difficult to settle or prove now does not argue so much that a claims agent is a rogue as that the law is inadequate or inoperative or that shippers do not take sufficient precautions. Grain shippers can by the expenditure of very little time, and that time can invariably be found when a car is being loaded, measure the inside dimensions of the car and when ready to be sealed, the depth of the grain below the loading line. With such measurements, a man is practically assured against loss and can tell within a few bushels just how much the outturn should be. There is a need to exercise every care in shipping.

Exodus and Impetus.

The annual exodus of harvesters from East to West has set in. As a method of securing transitory help to take off a crop this annual movement of thousands of men from the Eastern provinces, is probably as satisfactory as can be well devised with the elements of population within the Dominion. That it is not an ideal method no one will claim and very many there are who see numerous evil effects in it. The aspect of the movement that is supposed to redeem it of its many drawbacks is that it affords many men a chance to find a means and location for improving their conditions and settles the country with a good class of farmers. This no doubt is true, and possibly more fraught with advantage to the

country at large than we may be aware of, but for the present we are mostly concerned for the farmers who are settled, and to whom the advent of eastern labor for harvest is intended to most directly benefit.

Farmers have come to regard these annual influxes of harvest hands as something that can be depended upon just as regularly as the June rains, the exhibitions and the fall frosts and are developing farming methods which are dependent upon this sort of labor for their success. As temporary expedients these methods may be and are quite commendable but if they were to become a permanent part of our farming system, it would be most unfortunate. If there is one thing more than another that retards the development of the soundest, most permanent, and profitable system of farming in the Canadian west it is the element of changefulness and shiftiness that prevades our every undertaking. This element shows itself, first, in the nomadic tendencies of many of our farmers, as a result of the example of the roving harvest hands, and later, in the lack of a deliberate application to the work of establishing a home and the general atmosphere of don't-give-a-claimtiveness about the homestead. Traveling is discovered to be easy, surroundings are more or less primitive on our great plains, land is not so difficult of securing that its real value is appreciated, hence, the roots of human affections do not strike deep into the soil. Therein lies the great deterrent force of our home building and of the development of a rational system of farming.

The annual harvest excursions should be considered in a sane light and while availing ourselves of their assistance we should also remember that they stand as a reproach to and a warning against a system of soil cultivation and crop growing that does not permit of the laborer's living on the land the whole year round, a system that is, to say the least, not calculated to make the best farms, the highest type of farm people, nor to win from the land its maximum potentialities.

Adjusting the System.

Reports from Alberta state that prices of lumber have been voluntarily reduced, not because the attorney general has prepared to bring suit against the lumber dealers' association, but on account of the need of money on the part of the mill owners. This indicates two things, first that the price of lumber was raised higher than the trade would stand and therefore curtailed consumption, and that commercial evils will often right themselves without outside interference. The falling off in trade on account of high prices is something the mill owners cannot well stand as they have already put their money into the manufacture of lumber and must get it out again. Piles of lumber and retailers paper do not satisfy the demands of the banks when the date of the expiry of their loans comes around and a failure to meet obligations through lack of business, does not inspire confidence in financial circles, and without this confidence manufacturing cannot well be conducted. A lumberman must have a good market, and if the price is prohibitive of sales, then the price must be adjusted. The falling off in building this season, indicates that the consumers are generally persuaded that lumber prices are too high. A lowering of prices is sure to result in an active resumption of building operations which should teach lumberman, and other dealers in such commodities, that exorbitant prices turns the flood of material back upon the producer. The problem of marketing is not solved by the elimination of competitive selling.

HORSE

Lameness in Horses.

The following practice is valuable for the detection of lameness: The horse should be quietly led out of the stable in halter or snaffle bridle; if he be a spirited animal, the latter should be used. The man who leads him should hold the rein at about eighteen inches from the mouth, and there must be no holding up the head with a tight rein to prevent "nodding." At the same time, the rein must not be too long, else the animal will turn round and kick the man. A piece of hard road should be selected, and the animal trotted on it immediately after being taken out, for the reason that a slight lameness may disappear if he be walked some distance. Some dealers will knock a horse about in a stall before taking him out, to remove such lameness. This practice should always be looked upon as suspicious. If the horse be frisky, he should be petted and cooled down and very carefully led at a slow, easy jog, in order that the examiner may have a fair chance. The horse should be trotted straight away from and straight back towards the observer, and it may be necessary to do this repeatedly; but in most cases, where an animal's gait is such that the examiner is not quite able to decide whether or not he is going lame, it is safer to give lameness "the benefit of the doubt," and decide that he is not sound. It is possible a perfectly sound horse may have a peculiarity of gait that leads the examiner to suspect lameness, but such is rarely met with and animals with such peculiarities are undesirable. Hence, where any well-grounded suspicion exists, it is better to take no chances. However, if the examiner cannot decide in a few trials whether or not lameness exists, and he wishes to have further tests, it is better to put the horse back in the stable and allow him to stand at rest for a few hours, as exercise has a tendency to lessen, and in some cases entirely remove the lameness. After having stood at ease for some time, he may again be taken out, and if the action still be suspicious, he should be condemned. In cases of very slight lameness, especially in front, it may be necessary to put a man on the horse's back, as the weight may cause a manifestation of lameness that without it may not be quite evident. In most cases, however, this is not necessary, and if the animal be a spirited one it often defeats its own object.

In some cases lameness is manifested only after sharp work, and it is necessary to give the animal a few miles' sharp trot or gallop, tying him in a stall until he cools off. When taken out of the stable and trotted after such a test, lameness, if present, will be detectable. It is only when suspicion exists that such a test is necessary, as in cases of badly formed hocks, splints near the knee, or some suspicious alteration of structure in any part of the limb, or in cases where there is "pointing" when at rest.

The gait alone is sometimes sufficient to determine the seat of lameness, and in some cases is the only guide; but it is a good rule, and one that should never be neglected, to examine the whole limb while the animal is at rest. By the latter method we discern lameness by positive and negative signs. For example, if there be heat, pain, or swelling in any part of the limb, discoverable by manipulation, the evidence is positive that the cause is in such a part; but if, on the contrary, there is neither pain, heat nor swelling in the limb, nothing in the superficial parts of the foot to account for the lameness, we must conclude that it is deep-seated in the foot, or in some part of the limb thickly covered by healthy tissue, and we must arrive at conclusions by negative symptoms, assisted by peculiarities of gait.

Lameness may be caused by a sprain of a ligament, tendon or muscular tissue; by fracture; diseased bone or cartilage; morbid conditions of the skin; nerve and other tumors; plugging of arteries; accidents, as pricks in shoeing, treads, ulcers, rheumatism, etc.

"WHIP."

Inspector's Report of Horse Breeding in Ontario.

Last year, the Ontario department of agriculture decided to investigate the horse breeding industry in the province with the idea of discovering whether or not the people favored, and the industry was in need of some compulsory requirements of the owners of stallions and mares with the object of improving the stock. The work-

ard breeds, 203; Percherons, 132; Hackneys, 123; Shires, 751; Thorough breeds, 50; other breeds such as Belgians, German coachers, French coachers, French drafters, English coachers, Suffolk Punch, French Canadian, etc., were represented in smaller numbers. The breeds having the largest number of unsound representatives at service are the Standard bred and Clydesdale.



YELD CLYDESDALE MARES AT REGINA EXHIBITION.
Rosadora, Irene, Gay Jess, Lady June, Montrave, Geisha.

ings of the stallion inspection act in the Western provinces had been observed and some breeders were clamoring for such an act in Ontario. To get the information desired the province was divided into eight districts, and two practical horse men conducted the enquiry in each district. These inspectors made a somewhat hurried official examination of the majority of the stallions in service, made inquiry as to the number and type of mares in each district, and held meetings of horse-breeders in each county for discussion of the problems for the improvement of the horse stock of the Province, on which the inspectors were instructed to report. Owing to the fact that no official chairman of the Commission was appointed, the report is somewhat disjointed, giving only the opinions and conclusions of each group of inspectors and their recommendations, but no final summing up or concerted conclusion of the Commission. It is noticeable that there is considerable difference of opinion in the special reports of the inspectors for the several districts as to how far the Government would be justified in imposing compulsory requirements on owners of stallions and mares in the effort to advance the industry of horse-breeding, the principal points on which the sentiments of these men to be sought being stallion inspection, registration and license, and of a lien on mares to secure payment of the service fee.

Two or three of the sections of the inspectorate, in their special reports, take the precaution to say that, while the preliminary inspection covered by this report may be valuable to the Department in further efforts to advance the interests of horsebreeding, they would advise caution in interfering with the rights of individual owners in one branch of live-stock raising more than in others, further than to provide a penalty for deception and misrepresentation calculated to mislead those uninformed as to the true meaning of pure breeding and of pedigree records and of hereditary unsoundness. Ontario is very chary about the care of personal liberty in the matter of stock breeding, in many other things in fact and the opinion is quite general that it is not law that is needed to effect reform or improvement, but a common wise knowledge of the business, which cannot well be instilled by processes of legislation.

The census of stallions and mares is quite interesting.

Statistics were collected in each division, which, though not complete, give an approximate idea of the number of stallions, registered and grade, and of mares bred at the time of the inquiry.

Altogether there are 1,833 registered stallions to which were bred 123,544 mares, and 977 grade stallions to which were bred 45,505 mares. The stallions serviceably sound of the different breeds in the province numbers as follows. Clydesdales, imported 538, Canadian bred, 263; stand-

STOCK

Keep the Sows.

Farmers are making a serious mistake just now in selling off their brood sows. The high prices at which pork is selling at present seems to be urging feeders to dispose of as much of their stock as they can induce dealers to handle. The result is that in Winnipeg market for the past few weeks, in fact for several months, there has been an undue proportion of unfitted pigs and breeding sows on sale. The selling of hogs before they are in proper fit is a mistake serious enough, but the turning off of the sows in such numbers as they are now coming in is an irretrievable blunder, a blunder the far-reaching affects of which we are going to discover to our loss. For the past six months hog prices in the west have ruled higher than we ever remember them reaching before. Hog raising has become, and unless all signs fail, is going to remain a profit making industry. We are not producing in these western provinces anything like the pork required for local consumption. Our dealers here in Winnipeg are importing from the States and from Ontario, large quantities of hog products—ham, bacon and lard. There has been a brisker demand for hogs than for any other kind of live stock, and this demand seems to be bringing into the market, stock of all weights and ages. We saw in one of our largest packing plants the other day pigs that wouldn't dress 60 pounds. In the pen with them were fifteen or twenty sows that would kill out 300 or 400 pounds each. Great deep bodied, broad hipped animals, exactly the type required to produce profit making litters, the very animals which should have remained upon the farm; which should have been kept, by their owners, in the active business of maintaining the pork supply. We should not permit our better judgment in matters such as this to be overshadowed by our avaricious desire to get a cent or two a pound more for such stock as this than we ever got for it before. It is possible sometimes to make a cent and lose a dollar, and that is exactly what the farmer who sells sows is doing. On the old sows which he is turning off a few cents is possibly being made, but he is simply selling for a pittance his opportunity for making a good many dollars in the stock which that sow will produce him. Some of these animals that are being sold are of course past their years of usefulness as breeders, but the great bulk of them look like sows that are in their prime, like sows that have produced only one or two litters and are good for years of service still. We are doubtful if farmers have anything better or anything at all to take their places. They have

simply been disposed of because the chance to turn them into money looked good. Next season when hogs are selling as well or perhaps better than they are now, when the demand is just as keen, and prices just as high, we shall have time to reflect on such things as these. Then we will be turning our young and immature sows in to take the place of these full grown, experienced producers; then shall we be getting small weak litters where we used to have them strong and numerous, then we shall see the folly of the short sighted practices we are following. But it will then be too late. The present is the time for action. We are relinquishing now most readily that which will require a few years and some money to replace.

If we are reading the trend of conditions aright, the present is only the commencement of an era of high prices and prosperity in hog raising. We believe that this industry is going to offer greater profit-making opportunities to live stock men and farmers during the next few years than they will

of the sire and dam. We would suggest that breeding stock be selected which are of good length with lots of depth in the flank and quarter as compared with the shoulder. Breed so as to get two litters a year and have them come at such a time as will best serve the purpose for which the breeder intends they shall be fed. In our own experience March and the latter part of August or early September are the seasons in which we like to have the young pigs come. Use only mature stock for breeding purposes, and never dispose of a good quiet sow as long as she will raise you sixteen or more pigs per year. Use kindness in caring for the sows and thus have them feel at home in your company. Farrowing time is a very critical period with the sow and unless some care and attention is given losses are likely to occur. After parturition no food should be given for at least twelve hours and we would then recommend the feeding of a warm bran mash or scalded meal of some kind, with a little skim milk added if it is at hand.

line from the farrowing of the pigs until they are ready for the market. Our experience in pork production teaches us that it is the details which count, in other words the difference between success and failure is the same as between care and neglect. We trust, Mr. Editor, that this short article may awaken some interest in this branch of farming in some of the newer parts of this great country.

Bladworth, Sask. TRUEMAN V. FREEZE.

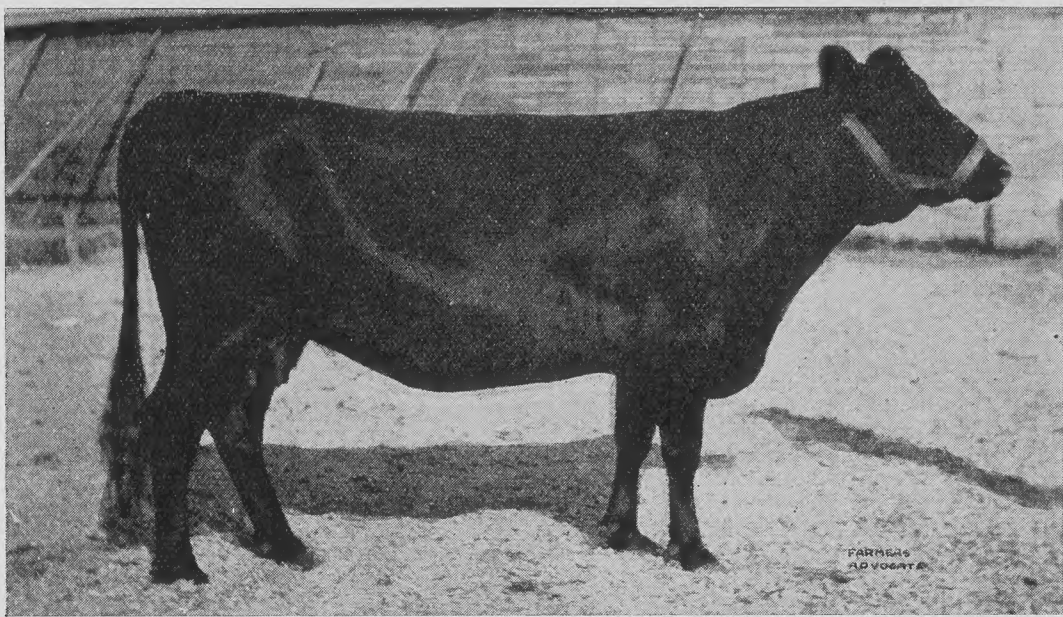
The Selection, Feeding and Management of the Boar.

The principle that "the bull is half the herd" holds no more truly in cattle breeding than does the same principle in respect to the boar hold true in the breeding of pigs. That "like produces like" is a long accepted axiom in the art of breeding. It is manifest in the living processes of every animate thing. It is the vital principle that should never be lost sight of when breeding animals of any kind or either sex are being selected. It is an extremely important thing to remember when making the selection of a sire.

Nowadays, when pure bred males are so plentiful, are so easily obtained and so reasonable in price, there is small excuse for using anything but a pure bred boar. In fact it is difficult to understand how it would be economy to use anything else. The pure bred boar will transmit his own character and quality to his progeny with greater certainty than a grade or cross bred, and it is only by using such a sire that progress can be made and success attained. No matter how excellent a cross bred or grade individual may be, we have no guarantee that, when we use such an animal on our females he will reproduce himself in kind. He may be all right as an individual, he may exhibit all the character, quality, merit and everything else we desire such an animal to be possessed of, but the tendency in every living thing is to reproduce the characteristics of the stock from which it sprung, even more certainly than it will reproduce those characters which are its own. Why the principle should obtain is not difficult to understand. Every animal represents in its individuality a portion of all the characteristics of all its ancestors. It follows therefore that those animals, the progenitors of which were of mixed descent, that have been produced by indiscriminate breeding, that result from the blending together of types and characters perhaps widely diversified, will very likely, no matter how excellent they be themselves, produce offspring of inferior merit to their own. The same principle holds with the pure bred. They have sprung from a race of ancestors that were bred pure for numberless generations. They are a part of all that has gone to produce them, and in the natural course of events, they will not only reproduce their own characteristics and the characteristics of the breed they represent, but they will impress those characters certainly and strongly upon the progeny which they beget. Hence it is that we oftentimes see a really inferior purebred animal producing stock of superior excellence to itself and a really excellent grade begetting offspring possessed of little of the superior merit which is its own.

Coming more closely to the actual business of selection one of the chief points to look for in a boar is character. Character is a term that represents something not easily defined, yet it is readily recognized and every experienced breeder knows its importance. In a boar it means a bold, impressive carriage, with strong masculine appearance. He is every inch a boar. He shows it at every point and in every motion. There should be no trace of femininity in his makeup. He should have a good strong constitution indicated by a full heartline and deep rib. There should not be the slightest tendency to weakness in the back, and the bone should be strong, clean straight, free from coarseness, crooked knees on weak pasterns. Quality is indicated by fine hair and a smooth skin, though this varies to some extent with the different breeds. Most important of all he should conform in type, conformation, size and appearance to the breed he represents.

In the management of a boar there are quite a few things to be considered and a number of very common mistakes to avoid. In the first place he should not be overfed, or kept in small, filthy quarters, where exercise is impossible, or allowed to range the whole farm in a half starved condition. He should be so fed and housed as to keep him in a fair fleshing with sufficient exercise to



SUSIE, 20526, SIX-YEARS-OLD, GRAND CHAMPION FEMALE IN RED POLLS AT WINNIPEG.
Owned by H. E. Waby, Holmfild, Man.

make from any other branch of live stock or line of agriculture. The present wide spread tendency to dispose of our breeding stock, combined with the ever increasing demand for pork products, is going to make hogs scarcer and higher in price, and the men who stay in the business, in such times as these, who plan to increase their output instead of scheming to reduce production, are the ones to whom any profits that accrue will fall. It is always wise to walk when the crowd begins to run. It is generally safest to keep out of a good thing when the crowd is fighting to get in; to be most active in extending business when everybody else seems anxious to curtail theirs. Experience in every industry bears out the wisdom of this principle. It is borne out in every industry connected with the farm.

The present tendency to market the breeding sows is unfortunate, it cannot be too strongly condemned. Coarse grains this year are going to be unusually abundant. We sowed comparatively a larger proportion of our acreage to this kind of crop this year than we generally do. In some districts a portion of the late sown wheat will likely be frosted before it can mature. Everything points to the fact that feed is going to be plentiful and fairly cheap. Conditions ensure that hog prices are going to stay up, and if they do then this grain can be more profitably turned into pork than it can be marketed in bulk. But we need the sows. Be wise. Keep them.

Breeding and Feeding Hogs for Profit.

EDITOR FARMER'S ADVOCATE:

To attain to a fair measure of profit and success in hog raising a man requires to have aptitude and liking for this branch of agriculture. Given that and, providing he exercises some intelligence in the matter of selecting his breeding stock and in feeding, success is assured, in fact it is certain. We purpose to outline here some of our own ideas and experience in this business. The first thing of importance is the selection

Feed rather lightly for a few days after farrowing and increase the rations to such extent as your judgment warrants or the sow requires but never feed more than will be readily eaten. When two weeks of age the pigs are the better of having a separate apartment for themselves which they can go in or out of at will but which is not accessible to the dam. Here they may be fed dry oats, barley chop, pea meal or any other food that is available. They are all the better for such treatment, they learn to eat readily and grow more rapidly. Leave them with the sow until they are seven or eight weeks of age, at which time they are ready for weaning and will not miss the sow very much.

They will miss her less if they are liberally provided with good nutritious food of which skim milk should form a part, keep the pigs growing as rapidly as possible and give them as much variety in their diet as you can. For this purpose we like to use green feed in summer and something of the same nature to take its place in the winter. In our experience clover is the best green feed we can use in summer and mangolds or sugar beets the best to take its place in winter. Both of these crops can be grown successfully and abundantly here in the west.

Do not allow the young stock to have too large a range but let each bunch of 8 or 10 have a few square rods of land on which their pig curiosity may be satisfied. Have the green feed plot as near the pig yard as possible. Cut it and feed in a good dry place, we prefer for this purpose a large wooden trough well pegged down. Provide the growing stock with clean, comfortable quarters, and give them abundance of bedding. Farm stock that is not comfortably housed cannot turn in as large profits as it should. The same applies to the sow. Never keep her in dark, foul and filthy quarters, if you do she is not going to produce for you a profit making litter.

Speaking in a general way, Mr. Editor, the profitable production of pork is very similar to any other branch of farming, that is careful attention must be given to details all along the

maintain him in a hardy, vigorous, growing condition. The pen should be roomy, clean and well ventilated with a yard for exercise outside. If he does not take exercise enough, and seems inclined to grow fat and lazy, turn him out to pasture and let him work for part of his living that way.

There is no set rule to guide us in deciding when a young boar should be first used. A great deal depends on the animal and his development for his age. We have seen boars used when six or seven months old without apparent injury, but that's a little too young. Ordinarily it is safest not to use a boar until he is eight months of age and then only lightly till he is a year old. After that he may be used as freely as necessary, the owner of course using judgment and not allowing him too heavy a service at any time. The aim should be to save the boar from all unnecessary service, especially during the heavy part of the season. For this reason he should be permitted to serve a sow only once. He should not run with sows to which he is to be bred. Both practices tend to exhaust the him and if persisted in will result ultimately in small weak litters.

The food given should first of all be nutritious, it should be varied and moderately bulky. In winter succulency should be given the ration by feeding roots, preferably mangolds. In summer green food, clover or alfalfa, will serve the same purpose. The best grain food is finely ground oats mixed in about equal proportions by weight with shorts and bran. The greatest possible care should be observed that he is not over fed. Feed only what he will clean at a single meal. If he gets fat and lazy give him less.

A boar should be used as long as he will produce good strong litters. We have seen them kept until nine years old. If they do not become cross, and are still active breeders they may be safely kept until this age. Most farmers however, prefer turning them off younger, when they are half or third this age. The trouble is that most boars are ill used, are put into service too young, and are not properly fed. They are used up before they reach maturity. Weak, immature sires can never beget strong, vigorous, profit making stock. The excessive use of a male impairs his powers of production and diminishes the potency with which he transmits his qualities.

An American's Impression of our Cattle Trade.

Mr. John Clay, of the well-known live stock commission company of Chicago, has been travelling in the Canadian West and sends to his paper *The Weekly Livestock Report* the following impressions of the Canadian West:

"When you leave beautiful Banff the railroad runs along the Bow River and through narrow depths, and amidst magnificent scenery. You drop gently on the Plains. Cochrane, a well-known name in the old ranching days, is now a thriving town, and the lands belonging to the old cattle company have passed into the hands of the Mormons, who are getting a vigorous foothold in this part of the world. This sect are ideal farmers and they will do great work in this land of rich soil and generous climate.

"Thirty years ago Cochrane was a name to conjure with in the bovine realm, for he was breeding at Hillhurst, Quebec, a lot of grand Shorthorns, and other classes of stock. When the Bow River Range came to view in the cattleman's eyes, the senior Cochrane, who only recently passed over to the Great Majority, organized a cattle company which after various vicissitudes has passed out of sight, and the plow of the Mormon desecrates the land in the eye of the old-time cow-puncher.

"Gently by the side of the rushing river you approach Calgary, a place as famous in the Northwest as Cheyenne, Wyo., was in the States. This great difference,—Calgary has a magnificent stream of water broad, rushing, clear, like the Bear River as it sweeps past Hayden, Colorado. Cheyenne has Crow Creek, a tiny little stream almost without value from an agricultural point of view. Both cities are passing into the realm of reminiscence, so far as the ranching industry is concerned. The granger has taken the land, only around Calgary he has a better chance than in the vicinity of Cheyenne. In this great Northwest the soil is richer and they have more moisture. Even if the rainfalls of late years did stop, and those heavy rains often go in cycles, there is an endless amount of water to cover the land. The Bow River is larger than the Cache le Poudre at Ft. Collins, Colo., or the streams that make Sheridan, Wyo., a lovely garden spot, but in contrast, those places have more sunshine and a higher temperature. Then there is a danger of frost, and at this date, (August 15th) they have had several degrees. It is the old story—every country has its compensations. Goldsmith says;

"The naked negro panting at the line
Boasts of his golden sands and palmy wine."

"At Calgary you meet some of the old-timers. There may be many of them, but in the half day's visit we ran across two, one an old acquaintance who a quarter of a century ago lived on the Laramie Plains. Another old-time cow-puncher from Old Mexico and South Dakota was smoking his cigarette on the sidewalk, and so the reminiscences began. We worked back to Jack Willan; Lionel Sartoris; Bob Marsh, Dave Dole, Harry Balch, Dan Bacon, E. S. R. Boughton, and a host of others who have either passed away or have disappeared to other parts of the world.

"This passing of the range is a sad sort of business. We have seen a lot of processions of this kind—Western Kansas, No Man's Land, the Cherokee Strip, the fencing of the Panhandle, Eastern Colorado, and the disintegration of the big herds in Wyoming, South Dakota and Montana. Here in this country some thirty-five years ago, described by Butler as the Great Lone Land, a terra incognita, invaded by the Canadian Pacific Railroad about 1880, there grew up a great ranching industry and now in 1907, a little over a quarter of a century, it is on its 'last legs.' The wasteful days are about past and in their place come the shifting conditions which change the frontiers into a state of civilization. Up and down the Bow River Valley homesteads are dotted everywhere,—little white specks on the horizon, and you see the steam plow, the cultivator, the mower, all in action, and the selfbinder was standing ready to harvest the first ripening grain. In our innocence we came to see a ranch country; we expected to see great sweeps of grassy divides with cattle and horses dotted on them. The granger has taken the land and he is going to hold it. Strange, it is not, that for years these ranchmen lived in these rich valleys and did not know their latent wealth? On the roundup ground are great fields of wheat and oats. It is no myth. There they are, waving in glorious sheen before you. So we come once more in our lifetime on a transformation scene, the passing of the wild.

"One morning when leaving Calgary we were introduced to Mr. Pat Burns. Mr. Burns is the most talked-of man in the Northwest. He has marked his footprints deeply from Calgary to Alaska. He was pointed to us as half oracle, half sphinx, but he turned out to be a very pleasant gentleman, frank, intelligent, observant, both giving and seeking information. Burns no doubt works for Burns, and although an Irishman, he resembles the proverbial Scotchman who keeps the Sabbath day, and everything else he can lay his hands on. Burns, with the help of Gordon & Ironsides, controls the meat business of the Northwest. They occupy very much the same position as the Big Four did in our West twenty to twenty-five years ago when we had a great plethora of low-class beef from the ranges and no outlet for it. In this country there has been but two outlets, the local demand and Liverpool. The freight and duty stopped the trade moving to the States market. Lower Canada supplied herself, in fact, exported a good deal of live stock. Burns by his energy and organization, came to control the local markets in the mountains along the coast of British Columbia right up to the Yukon. His markets, so far as we saw them, were models of cleanliness. In this way he could work off the rough stuff. It is no trouble to dispose of the good stuff, but here through some underground arrangement Gordon & Ironsides could do the export trade better than anyone. Many of the ranchmen exported direct to England, but every one of them admits he would have done as well to have sold at home to the Trust, as they call it here. In a range herd there is always a top and a tail, and the tail sold badly in Great Britain, more especially when it had to go to the slaughter-house instead of to the feeding pen. At best it was a narrow market and it fell into the hands of a syndicate who could control it, and it has given rise to no end of controversy and heart burnings. Last year Mr. Burns handled 65,000 cattle. This year he may do the same, but what of 1908 and the after years? The cattle coming from the American side to graze can be returned duty-free to the States. This Country, with its depletion, will afford slim picking, and till matters readjust themselves, until the granger and small cattleman gets in working order, so far as live stock is concerned, the supply will need to come from the outside. History repeats itself. With favorable seasons the great strip of rich soil that lies and stretches away from the base of the mountains will be given up to grain growing, but the soil gradually tires and needs rejuvenating and this can only be done through live stock. They return fertility to the soil, just as the beetgrower of Colorado now depends for his heavy yield per acre upon the manure left from his sheep feeding.

"Harking back to P. Burns & Co., Ltd., they have a slaughtering house at Calgary, and they are rapidly developing it to the dressed beef business. They will be to Canada what Swift, Armour and others are to the States. In such a field they will not be alone. As railroads come, and they are coming, harrying up different parts of the country with the Atlantic and Pacific, dressed beef plants will locate at favorable points. Burns being there first, and having good organization, will likely lead, but he will be followed by competition. Then will come the hour of the stockman. To those who have studied the question, spent their lives in this business, there is only one solution to our live stock trade, and that is, the pack-

ing house, but to run such a concern you must have a steady supply of raw material day after day, month after month, because people eat steadily, not by fits and starts. Burns has had to supply his own winter cattle, hay-feedings some 15,000 head per year. He has had to look after his own supply from January to July. This is a big undertaking in a severe winter climate like Alberta. With the growing of grain, more especially oats, and lots of hay, there is no reason why the farmer of the Northwest should not turn out many thousands of fed cattle. At present no effort is made and very much through this fact the beef business of the vast territory is a one-man-power industry. The general public, nay, the average stockman scarcely know what the mission of a packing house is. They do not realize that it is merely a big butcher shop run on scientific lines. They have to supply their customers day by day. If they do not, they are apt to lose valuable accounts. Our corner grocery man and butcher in Chicago who buys for spot cash and deals where he likes, must be supplied with what he wants every morning. If Swift cannot do it, Armour will, and vice versa, and if the larger packers cannot meet his wants, he has Pfafelzer kill him some choice bullocks and so his business is kept going and his customers supplied. This business in our large centers must move automatically and with absolute precision. As the supply of treats and other products fall off in the cooler the demand in the yards is quickened, and thus reflects in the country. Then there comes a time as it did this spring, when mutton got so high that the average housekeeper would not buy it, and demand being curtailed, prices declined. It may take some time for such conditions to prevail in the Northwest of Canada, but it will come. It is an economic condition which cannot be throttled by one man or any organization of men.

FARM

Steam Power and Clover.

The discussion which has appeared in these columns of late over Mr. Greig's claims for steam plowing as a means of increasing the moisture content and therefore the fertility of the soil gains point when we observe the looseness of some soils on top and their firmness below the bottom of the furrow. This variation in consistency of soils is most noticeable in older worked lands where below the point of cultivation a hard table has been formed by the continuous passing of the plowshare and the tramping of horses aided by the tendency of moisture to stop at that level in its upward course. Very often this pan or surface is not thick and is easily broken up by the ordinary plow. In other places it is harder and closer and can only be broken and loosened by a deep plow with plenty of power or by the growing of deep rooted crops as Mr. Sheldon suggests. The latter is nature's way of renovating a soil and of keeping it from becoming ill-conditioned and for results we can hardly improve upon nature, but we very often want to accomplish much the same end without using the same means and in opening up the subsoil to give a larger feeding ground deep plowing can be made to very largely take the place of deep rooted crops such as clovers. By this we do not mean that deep plowing is as good for the land as a clover crop, for clover, besides opening the subsoil, adds to the store of fertility and moisture holding constituents in the soil.

Deep plowing whether by steam or other power, preferably by steam as the greater speed pulverizes the soil, is simply a compromise as far as renovating the soil is concerned, for clover or alfalfa. It is a compromise, however, which we should very much like to see tried on land that has an artificial hard pan and believe that if such land were plowed this fall in such a way as to break this subsurface crust there would be a marked difference in the crop next year. Some of our steam power plowing friends might do a little experimenting this fall and let us have the results of their observations. The clover growers will soon begin now to break up their sod and we expect to hear of wonderful improvement in their lands.

The Freezing of Immature Grain; Cutting to Avoid Frost.

To understand clearly the affect of freezing temperatures on immature grain it is necessary to have some knowledge of the physiological processes that go on unceasingly within the plant itself. Know that and our conception at least of the injury which freezing wroughts will be a more intelligent one.

A plant is a highly complex organism. It is by no means as simple a structure as its outer appearance would indicate. From the tip of its tiniest rootlet to the apex of its furthestmost leaf, it is built up of cells varied in form, so minute as to be visible only through a powerful microscope, so numberless that were a row of figures put down to represent the cells within an ordinary wheat plant that number would be too vast to impress the human mind with its significance. And these cells, how wonderfully perfect each of them is in itself; separate and independent in a sense from all the rest, yet how dependent after all each upon the other, and upon the plant itself, the perfect whole. Yet each cell, too, is a perfect organism. Take a full grown living one from near the apex of the leaf for instance, from any point where growth is going on, and see how it is formed. You will find that it consists of several parts. First there is a thin closed membrane termed the cell wall, an elastic dead material that acts as a protective covering to the contents and holds them in just as the shell of an egg

is the cells of the leaf, which have been termed "the mill of the plant." Here the functional activity of the protoplasm transforms the carbon and water into sugar, and changes the nitrogenous substances into proteid forms. These substances are carried from the leaf to such points as they are required for growth, in solution in the sap. When their destinations are reached the cells there set to work, change the sugar into starch, the form in which carbonaceous materials are usually stored, and the proteid materials into various forms in which the protein is formed in the plant.

In order that these processes may proceed harmoniously, there are several requirements as to surrounding conditions. The most important of these is temperature. When a certain point is reached, a point which botanists term the minimum temperature for growth, functional activities cease. This point is not the same for all plants. In the cereal grains, wheat, oats, barley, it is reached at 43° F., below that no injury can occur to the plant till freezing temperature is reached

up, the cells at the point where development is required to be made have not sufficient vitality to perform their functions to convert the sugary solutions into starch the nitrogenous substances into protein. This is the great injury which frost works when it occurs within a few days or a week of maturity. If it comes earlier than that the action is similar, the results even more disastrous. For growth is checked even before the roots have ceased absorbing nutrients from the soil, and even the hay from such a crop will not possess the feeding value it should.

In this country it is general practice and in years like this, a wise practice too, to cut grain green. We cut grain in the Canadian Northwest when it is more immature than grain is ever further south. We are enabled to do this largely because of the dryness of the atmosphere. In more humid climates grain cut as we ordinarily cut it here would mould and rot and never dry in the sheaf. Grain may be cut green because the physiological processes by means of which the seed is filled proceed independent of the root. The fact was pointed out that the root died sometime before the grain was ripe and for several days prior to reaching that stage the nutrients that went to build up the developing seed were taken neither from the soil nor from the air, but from the materials stored up earlier in the season in the stem and leaves. It is well to keep these facts in mind and this year more than any other. There were a good many acres of grain sown this year in this country that unless frost is unduly delayed will never get any more than a sight at maturity. Our advice is to cut such grain just as soon as you think it is safe to do so, just as soon as you think the plant can get along without its root system. There are chances of course that you may lose by it. It may not freeze this fall till October but the chances are that it will. Better lose a little by ripening the grain up rapidly in the stook, than risk a greater loss trying to mature it in the soil. We refer especially of course to late grain, though in a measure this applies to all.



A. PARTRIDGE, OF CONDIE, SASK.
Harvesting with Mule Teams and 12ft Binders.

protects and holds together the liquid contents that are within it. And the substance that go to make up a plant cell are not altogether dissimilar either to those that go to form the egg. The similarity in their appearance and arrangement is close enough for illustration purposes. Within the plant cell, lining the outer wall all around and corresponding to the white in an egg, there is a thin layer of slimy, jelly-like substance called protoplasm, the substance that in all living things is directly associated with the peculiar phenomena which we call life, that is possessed of those vital properties by which the processes of nutrition, secretion, and growth go forward, the so-called physical basis of life. Inside this protoplasm lining again and buoyant in it as the yolk, floats within the egg, there is another body in the cell, denser and darker colored, usually spherical in form, called the nucleus. This, in a sense, is the reproductive organ of the cell. At those points where growth is being made these nuclei are the chief factors concerned with the development; they divide and redivide and form new cells in numbers beyond estimation. The nucleus of a cell at the point of growth is in a state of constant activity. Spontaneously it will separate itself into two parts. Each of these will take a portion of the protoplasm that enclosed the plant cell. It manufactures a shell about itself and there are two cells equal in size and power to the one that previously existed. Thus multiplication goes on indefinitely and thus the development called growth is made.

The processes of nutrition and secretion are largely performed by the cell protoplasm, that is to say the nucleus concerns itself with the business of growth, and the protoplasm takes upon itself the duty of elaborating and supplying a sufficient quantity of food material that that growth may be attained. This is the most important and the most wonderful, too, of all the processes that go on within a plant, all the movements that go on, all the changes by means of which the crude materials taken up by the roots, or absorbed by the leaves, are transformed into the highly complex forms in which they exist in the plant, are affected by this protoplasmic substance that lies within the cell wall. The carbon dioxide of the air absorbed by the leaves, meet here with the water and soluble salts taken up from the soil. The meeting place, by the way

but growth is temporarily suspended and no development will be made until a point is reached above this minimum temperature for growth.

It is a fact well known to all that freezing temperatures, that frost, affects injuriously only immature plants or plants made up largely of watery cells, the apple, for instance. The dry stem is never affected, while it is a known scientific fact, that mature wheat grains may be soaked in liquid hydrogen, subjected to a temperature 450 degrees below freezing and afterwards germinated freely. An immature plant is one in which full growth has not been attained, in which the cells are very watery in character, they being still engaged in multiplying themselves and elaborating food materials. As maturity approaches, in the wheat for example, the lower parts of the stem begin to die. The roots first, the dead area extending from below upwards just as rapidly as the cells of the stems can rush the nutrients previously stored in themselves up to the ripening grain. If weather conditions are favorable this translocation of materials goes on rapidly, the grain quickly matures. If the temperature drops the plant activities decrease at the same rate. When it goes below 32° F. the frost is going to affect the most vulnerable point first, and that point in ripening grain is the seed. The watery cells in this part of the plant are most susceptible to injury and are injured by having their liquid contents forced out through the cell walls by the expansion power of the frost. The liquid thus forced out collects in the intercellular spaces—the spaces between the cell—and forms ice. If the freezing is rapid and severe the cell wall itself may be ruptured, but ordinarily the water simply oozes out. If the thawing could be affected slowly this water would pass back again but in average conditions this is impossible, it is evaporated off into the atmosphere and the cells drop out just as they would from the affects of excessive heat. They are no longer able to perform their physiological functions. The water frozen from them was the medium through which they affected the transformations made in the nutrients carried to them from the leaves and stem. They are simply dried out. The seed becomes no larger, it shrivels up, it dries out before the nutrients required for its development have been carried to it. Even though the maturer cells further down are still able to force materials of growth

Steam Power and Moisture Cultivation.

EDITOR FARMER'S ADVOCATE:

I have read with enlightenment Mr. Oscar Sheldon's criticism of my contribution to your valuable paper. I need not hope that Mr. Sheldon is quite well for I gather from his remarks that he is "in clover," so much so that he heads his letter "Steam Plows and Moisture Conservation." Mr. Sheldon is evidently a practical farmer. He practically tells us so. Still he does not seem to have grasped the difference between "Steam Power and Moisture Conservation" and "Steam Plows and Moisture Conservation." There is, however, a mighty difference. As a matter of fact there is not such a thing as a steam plow. There are plows specially manufactured for use in conjunction with steam tractors, as there are also cultivators, harrows, land packers and other implements, which by their judicious employment may render great assistance, yea, even in preparing land for the cultivation of clover. A man that thoroughly masticates his food assists digestion; horses consume oats whole, but by crushing them the nourishment contained therein enters more easily into the system. So it is with the soil, the more friable it is rendered whether by steam cultivation or the growing of clover or roots the more easily will the roots of the plant be enabled to run after the food contained in the soil, whilst at the same time the resistance to percolation and capillary movement of moisture will be materially reduced.

To this end steam power will render great assistance. Not only can a better cultivation be obtained by the employment of steam power, but the work can be performed more economically, with greater dispatch and possibly most important of all, at precisely the right time and when it will be of the greatest advantage.

Mr. Sheldon remarks that Professor Campbell's theory for moisture conservation is not new. With this most of us will agree, but why was it necessary for Professor Campbell's presence in Alberta, seeing that in that province there was such an authority as Mr. Sheldon? Why did he not enlighten the farmers as to the best method of moisture conservation? There was perhaps no more necessity for Mr. Campbell to preach moisture conservation than there is for Mr. Sheldon to tell us "there are three distinct ways which water is held in land." This I venture to believe is not a discovery that can be ascribed to Mr. Sheldon's researches, nor can we bring ourselves to believe that Mr. Sheldon is the first man to discover that clover is beneficial to the land, either for moisture conservation or for the supply of other constituents necessary for plant nourishment. We can go back to the time of the ancient Romans and find Columella Cato, Virgil, Pliny and other eminent men of that day propounding similar theories.

It is a simple matter to preach, the difficulty is to get the theories put into practice. Professor Tanner

after listening to a lecturer relating to the results of some experiments he had made, said, "Well, sir, there is only one word in the English language that adequately expresses what you have done. You have revolutionised the science of agriculture but you will experience the greatest difficulty in getting people to believe it, notwithstanding it is perfectly true, and in the long run truth will prevail." *Magna Est veritas et prevalebit.*

I remember many years ago an old farmer named Kerney, whose farm was not far from my grandfather's, and who made use of manure in abundance, he preached manure on all occasions, but making few converts he decided to demonstrate its action in a practical manner. He had a field close to the coach road running between Aberdeen and Dundee. This he planted with potatoes, half he manured and the other half receiving no dressing. As was expected the former gave the best results. He then placed a finger post in the center of the field with the finger pointing in the direction of the unmanured half, and on the sign he wrote—"Take notice potatoes will not grow without dung." Still his neighbors continue to farm with a very sparing amount of manure.

If Professor Campbell has succeeded in converting the farmers of the West to practice the theory he was preaching, whether it was "as old as the hills" it matters not, he is to be congratulated. Mr. Sheldon tells us that "what is required is managing soil to increase its water retaining capacity is to get the lower subsoil opened by some means; get it so that water may freely percolate down into it, not for eight or ten inches but as many feet." This he says can only be accomplished by the cultivation of clover.

Now I am not going to pretend for one moment that there is any subsoiling implement that will open up the soil to a depth of ten feet, but I may say that I have subsoiled many acres of stiff clay land to a depth of three feet and certainly six inches below that was moved by the tearing action of the tyne. Would not this loosening of the soil help Mr. Sheldon's voracious subsoiler in arriving at the ten feet limit with much less resistance? Why, the roots would simply gallop through the first three feet six inches. To give some idea of what is being done in the shape of deep cultivation, herewith will be an illustration of a vine plow turning over the soil to a depth of thirty inches, which implement I have worked in Spain, Portugal, and Algiers—I merely mention this to show what has and can be done by steam power and not with the intention of recommending the use of such an implement in Canada.

Mr. Sheldon would have it that I suggested that steam plowing will change the climate of Canada—there are many times that I could have wished that such were the case. Only recently any steam plow possessing such qualities would have been a godsend to the country, not to mention winter. Why they might have knocked the fuel merchants out of business. No, Mr. Sheldon has either willingly or accidentally misconstrued the meaning of my remarks as to climate.

I say by the judicious use of both implements I am convinced that our crops will be much less subject to climate extremes. By this I mean that due to a more thorough cultivation, the roots of the crop will receive better nourishment, they would be stronger and more healthy and in consequence better able to withstand climatic extremes.

Now as to the eradication of weeds. Here again Mr. Sheldon does not appear to have grasped the meaning of my remarks. He would have it that I suggested that deep stirring of the soil would assist in the eradication. Why that would be almost as absurd as preaching to the farmers about using better seed before war has been made upon the weeds; it would be putting "new wine into old bottles."

Is not Mr. Sheldon aware that a steam drawn cultivator can be and is so constructed that it will work to a depth of two, three, six or fourteen inches and as we are all aware that surface cultivation and plenty of it is one of the best means of getting rid of weeds, it would be absurd to suppose that I suggested cultivating to a depth of twelve or fourteen inches. At this depth I referred to the assistance it would render for better moisture conservation. In connection with the eradication of weeds, better seed and moisture conservation, I venture to think the first step to be taken is that of eradicating the political weed, in connection with which class of pest a deep stirring might be necessary, perhaps a little deeper than the equivalent of ten feet, seeing that their roots may be even more voracious than those of the clover.

The eradication of the field pests is, I venture to suggest, only to be accomplished by determination and industry. Steam will lend valuable assistance as would a little from the Government coffers. Conservation of moisture, once the weed suckers have been annihilated, will be of benefit to the crops and assist in the conservation a deep and more thorough cultivation, fallowing and rotation of crops are necessary—then we may hope that by using the best of seed to have larger yields and of better quality.

A. BURNES GREIG.

Anchoring Fence Posts.

EDITOR FARMER'S ADVOCATE:

I have had thirty-five years experience in building wire fences, and I have always found the bottom of the post sound when taking out old posts, even when rotted off at the top of the ground. I saw, a few

years ago, a lot of swamp-oak posts that had been set twenty-eight years, to my knowledge, in clay land, and most of these were sound and good at the lower end, although somewhat worn and smaller at the surface; many were reset back on farm, where looks was not a consideration. I think this notching is all right, and is generally practiced; and, being down three or four feet, away from the atmosphere, will never injure the post, and, where practicable, the stone and wire is a sure help, as it will hold most any post in any kind of heavy ground right down to its place. I have been practicing for a few years the sinking of a long stone with No. 9 soft wire wound round it three feet in the ground in all low, heavy places, and attach two wires from the stone to the wires in our wire fences, and find the frost cannot grip these wires or the contraction of the fence lift or move the stone an inch. This works so well, we are now trying the stone and wires for every other post, and setting the cedar posts fifty feet apart. This is much cheaper than a post and placed just as quick, and, we believe, will hold the woven wire or wire-and-picket fence right to its place, especially on low, heavy ground. Right here I want to put in a word of warning and a little free advice, as so many are making the same mistake as we did in our first wire fence building; that is making the spaces between the wires too wide, especially just about the height of a cow's nose, as one dehorned cow will soon ruin a fairly good looking eight or nine wire fence, with pickets two feet apart. I have already had to replace two ten-wire fences, and am now adding a wire and replacing the first nine-wire fence we had built on the farm. Don't, for the sake of three or six cents per rod, put up a fence that will be a source of annoyance and expense keeping in repair for the next twenty years. Don't make less than a ten-wire, or a space below the top one more than seven inches. In our first fence we made the mistake of putting our bottom wires too close together, and find, outside of a barnyard or garden fence, four and a half or five inches is close enough, as our lambs or pigs have never got through the former.

Many old anchor post men make a mistake in digging the hole across the fence (and I admit seems to be the most natural), as it should be either large enough to let the post with the sticks spiked on stand so the sticks are lengthwise of the wires or the hole dug the long way, the same as the wires run, as by placing a post in this way, there is a bearing or brace on the draw side of the post of sixteen to twenty inches, and on the back side of the post you have sixteen to twenty inches of a hold-down which keeps the post from tipping or leaning with the tightening of the wires. One only gets the hold-down by placing the sticks in the hole cross-ways of the wire, and only very little help to keep the post from pulling over with the wires. We put a plank 4 ft. long on the end of a big rail just at the surface across the front or draw side of the anchor, as well as in front of the second brace post, which we take the same care in setting as the anchor. This cross plank should not be spiked, as the frost will get hold of it and lift the posts out. We set these posts eight feet apart, and use a small post or heavy rail for brace, set straight, eight inches from the top of the anchor to the second or brace post, then take No. 9 soft wire and wind around them within six inches of the ground at the anchor post, to within six inches of the top of the second or brace post; twice around the whole thing after the brace is fitted. Care should be taken not to notch the posts any deeper for the braces than absolutely necessary to hold them to place, until you cross the wires half-way between the posts; take a good strong stick, three feet long, place between the crossed wires, and wind it round until it draws the brace in its place firmly, and stop, as both posts can be easily drawn back out of shape with this purchase. Then dig or bore another hole ten feet from this for a third post or second brace post. Set this post in the hole and spike a good piece of rail or cedar on it lengthwise, so the top of it comes level with the surface; take strong rail, cut to fit the post, and place on this block and up to the top of second or now middle post. This makes an anchor out of ordinary posts that will never give as long as the posts lasts.

G. H. CAUGHELL.

Machine Trade With Great Britain.

The *Implement Review*, a British journal contains the following article upon the development of trade in machinery with Canada:

The large trade which is at present done with Canada by various countries in implements and machinery is forcefully presented in a recent report to the Department of Trade and Commerce, Ottawa by Mr. Mackinnon, the Dominion Agent at Bristol, England. This, among other information, gives the value of goods imported into Canada from all sources during the fiscal year 1906. And from this list we extract the following interesting items:

Agricultural implements \$1,814,564; engines and locomotives \$338,179; machinery \$9,550,314. It is evident from these figures that a very large trade is transacted with the Dominion at the present time, notwithstanding the tariff, while such statistics are well calculated to raise the hopes of British manufacturers as to the possibility of obtaining a much larger proportion of this aggregate business than they have hitherto enjoyed. The scope for agricultural

motors in Canada is indicated by an interesting letter which our readers may remember appeared in the June issue of the *Review* from Mr. A. Burness Greig. Mr. Greig, who has been in the West for five years making a special study of soil cultivation by mechanical means, laments the fact that although England is the home of the steam plow there is not one working in Canada that could be branded "made in England." He has put forth efforts to induce English manufacturers to enter the field, but they appear to fight shy of so doing, which fact he attributes to the credit system in vogue. Mr. Greig declares that the demand for light motors is beyond all means of supply, and if this is the case then there ought to be a splendid field open for them to British makers. Evidently something ought to be done to meet this growing competition, and since his views coincide with those previously expressed by various other authorities as to the existence of trade possibilities in the Dominion, we feel sure that the time will come when agricultural motors of British manufacture will be as freely found in Canada as they are to be seen in other oversea markets whither goods of this character have been successively shipped by English makers since 1902."

Alfalfa for an Alberta Farm.

Writing from Round Hill, Alta., which is in the north central part of the province one of our readers asks:

"Would you kindly inform me as to the best manner of cultivating alfalfa, quantity of seed per acre, best time to sow it and any other necessary information. Also where can I get the seed."—SUBSCRIBER.

In such a locality we would advise preparing the land as for a crop of potatoes by cultivating thoroughly in the spring to kill weeds and then sow about five to twelve pounds of seed to the acre along in June or July. The seed can be put in with a grass seeder or sown by hand and harrowed in. After the seed is in it might be necessary to go over the field with a very light harrow or a horse rake if the soil on top becomes crusted, but ordinarily the young clover will come through where the ground is warm and well tilled. Along in July or August it might be necessary to run the mower over the field to check the growth of weeds and in the fall a light coat of manure would help to start the clover growing the following spring, as well as being a protection during winter. By all means do not let stock on the alfalfa the first season, and unless it is very vigorous the second year's growth should not be pastured, but cut for hay. Alfalfa is very delicate at first but when at once established is a strong rank grower. It does not take kindly to low soils although we have seen good crops in river bottoms. It is an exceedingly deep rooter and will penetrate the hardest of subsoils. Its nature of growth makes it peculiarly adapted to the renewing of worn out soils as it takes its supply of plant food from below the feeding ground of most crops, opens the soil for the circulation of air and when plowed up leaves the soil full of decaying vegetable matter which liberates plant food and retains moisture.

Alfalfa can be left growing for several years if so desired, but its effect is so beneficial that the crop should be kept moving around the farm. Often when it is found that it takes kindly to a soil it can be sown with a grain crop, but until it has been established on a farm it is better to sow it alone. Any of our seed houses whose advertisements appear in these columns in season can supply seed, but the purchaser should ask for northwestern grown seed. It will be one of the greatest boons the country has ever known when alfalfa seed is produced north of the boundary line and the crop becomes general throughout the West.

Cleaning Scrub with Engine.

A correspondent writes: Could you or any of the *Advocate* readers tell me the best way to get rid of willow scrub? Would it pay to draw it out with a traction engine? If so, what size chain would it require?

S. W. B.

Our own opinion gathered from observations of cleaning land is that the size of the scrub has a great deal to do with the question. Where it is not so large as to interfere with a good strong plow we would not stop to pull it. Then, there is a size that could be pulled with a team and ordinary chain with about three-eighth links. Thus it would not pay to draw with an engine but anything larger than a team could handle we would use an engine upon. Some of the larger stuff might require to be chopped free on

one side but with a five-eighth inch chain and steady pulling most willow scrub can be taken out. With some large scrub it might be necessary to cut the trunk off and use it for wood or building and the stump would then be pulled with the engine. It is a very easy matter to waste time working with an engine on small scrub and also with a team when a plow can be got through. Use the plow first wherever possible as it is generally easier to clean off the scrub after plowing than before.

A Wheat Field Pest.

Specimens of growing wheat injured by an insect working in the stalks have been submitted to the authorities of the Manitoba Agricultural College for identification, and found to contain the larvae of the Western Saw Fly (*Cephus Occidentalis*). This little pest, when at the stage to do most damage, is a white worm about half an inch long and works up and down the inside of the stem causing it to ripen prematurely and fall over.

Reports from one of the leading milling companies of the province are to the effect that damage from this insect extends over a considerable part of the southern portion of the province, in some districts, from ten to twenty per cent. of the crop being injured. A few years ago this insect was noticeable, but never to an extent sufficient to do any serious damage to western crops.

The adult fly appears some time during the month of June and lays its eggs near the upper part of the stem of the wheat. The small grub which hatches in a few days, bores its way into the interior of the stem and works downward, cutting through the joints until the bottom of the stem is reached. Later in the season, it makes a larval case in the base of the stubble in which it remains during the winter. The adult fly appears the next season.

The remedies which are recommended by the Department of Entomology at the Agricultural College are to burn over the stubble of affected fields as soon as possible after harvest to destroy the larvae remaining in the stubble. Deep fall plowing is also effective by burning the larvae so deeply that the adult flies are prevented from appearing the following season. Land left for summer-fallow, on which affected wheat had been growing, should be plowed before the first of June the following season to prevent the escape of the fly.

DAIRY

Records to hand from the Pacific Coast show the average yield of 232 cows in the Chilliwack, B.C., Cow Testing Association for June to be 800 lb. milk, 3.6 test, 29.1 lb. fat. There are several cows giving over 1,200 lb. milk in the 30 days.

* * *

The interest taken by the dairy farmers in the work of the cow testing association, is steadily increasing. Evidence of this is seen in two or three ways. The milk record sheets being tabulated daily show a larger number of cows whose milk is being weighed and sampled six times a month, and better still there is an increase in the yield. That is to say that the second and third tests in the various localities show a marked improvement on the first.

Milking Machine Experiment Result.

In the fall of 1905 the Ontario Agricultural College commenced an experiment with a milking machine. This was not by any means the first time a mechanical milker was tested at this station. Milking machine manufacturers have come forward from time to time, who had faith enough in their inventions to have them tried out officially here, and in every instance hitherto these contrivances have either failed entirely to milk cows or have been impracticable to use for other reason. This time, however, a larger measure of success was looked for. The Burrell-Lawrence-Kennedy machine had something of a record on the other side of the line, its inventors seemed at last to have struck upon the right principles of construction. In its action upon the teat and udder it continued the natural sucking motion of the calf's mouth and the pulsating movement of the milker's hand. It seemed to be a combination as nearly perfect as it would be possible for a mechanical contrivance to be made. It failed, however. It could produce the milk

alright as long as the cow was willing to "let it down," but just as soon as she began, cow fashion, to "hold it up," then the trouble began. On some cows it worked all right, but on animals of high strung, nervous temperments it reduced the milk yield to a marked extent. And it wouldn't strip," After the machine had drawn all the milk it could get the operator required to "strip" the udder out clean by hand. To sum the whole thing up briefly, the milking machine will milk the cows all right if the cows will give down their milk. This is the whole question in a nutshell.

The bacteriological examination of the milk got by the machine and from hand milk resulted in some startling surprises. In not one case was the machine drawn milk as pure as that drawn by hand. The hand drawn samples varied from 3,200 to 68,900 bacteria per C. cm. (about twenty drops) the machine samples from 216,000 to 1,208,000 per C. cm. In not one case would the machine drawn milk have come under the standard established by health authorities, for "sanitary" or "certified" milk which varies from 10,000 to 50,000 bacteria per C. cm. In every sample the limit was far exceeded. In every case but one the hand drawn milk was as pure as "certified" milk. Professors Dean and Edwards sum their results up as follows:

1. In the comparative tests made of hand and machine milking for short periods, the results were in favor of hand milking in all tests except one.
2. When the machine was compared with much difference between the results got from hand and machine milking, showing that under certain circumstances the machine might be equal to hand milking for at least a short period of time.
3. The general tendency was for cows to go dry sooner than they were accustomed to do with hand milking. This was more particularly the case with the older cows. However, this is a point not easily solved, as cows vary in this respect from year to year.
4. Some of our young cows have given very good results with the machine, indicating that it may be possible to breed and train cows which will give fairly good results under this system of milking, though they are not likely to be so good as if trained to hand milking.
5. Special care needs to be exercised in the cleaning of the machine; otherwise the milk is liable to be tainted. Simply sucking water through the parts is not sufficient. All parts of the machine that come in contact with the milk must be thoroughly scalded or steamed, at least once a week, and, for good results, this should be done daily.
6. On average farms, where ten to twenty-five cows are kept, we do not believe that it would pay to install a milking machine at present. On farms where fifty to one hundred or more cows are kept, and where labor is very expensive, and difficult to get, and where the owner of the cows is not so particular about maximum yields from individual cows, the milking machine is worthy of careful consideration. However, we do not consider the machine at present on the market as anywhere near perfection, and we look for great improvement in them during the next few years.

The bacteriological summary is as follows:

1. It is possible and practicable for the general farmer, as well as the dairy farmer, to produce milk, either by hand or by machine milking.
2. To produce pure milk, by hand or machine milking, scrupulous cleanliness must be maintained about the stable and animals, the person of the milker, and the utensils.
3. Strict sanitary precautions being observed, hand-drawn and machine-drawn milk in our test showed approximately the same average bacterial content.
4. The mere fact that milk is drawn by the Burrell-Lawrence-Kennedy milker is by no means a guarantee of its purity. It may contain many more bacteria than hand-drawn milk under similar conditions.
5. We would not advise the installation of a machine milker, unless the farmer or dairyman is prepared to fill the sanitary conditions essentially to the production of pure milk.

Vermont Annual Report of Experiment Station, 1905-1906.

The State of Vermont is one of the solid dairy States of the U. S. Republic. For keen, business-like, up-to-date methods of handling cows and manufacturing butter on the farm or in the creamery, we can commend the Vermont dairymen. The nineteenth annual report of the Agricultural Experiment Station is strong in dairy features. The first dairy article of the report deals with the results of Act No. 81, of the year 1898, entitled, "An Act for the Protection of Dairymen, Relating to the Testing of Milk and Cream." This act requires that all glassware used in testing at creameries or cheeseries shall be tested by the Experiment Station as to its accuracy, and that all operators must secure a certificate of competency before they are allowed to test milk or cream at factories where dividends are made according to the test plan.

From July, 1899, to July, 1906, 26,975 milk (Babcock) bottles and 20,057 cream bottles have been tested, of which 2.8 per cent. in 1899 were found incorrect, and only .17 per cent. were incorrect in 1906. The writer calls attention to the fact that in Vermont, in 1899, 81 per cent. of the Babcock bottles tested were milk bottles, and only 19 per cent. were cream. In 1906, 34 per cent. were milk and 66 per cent. were cream bottles, showing the change in the method of operating creameries during that time. He also says: "Not an ounce of milk has been received at either of the two largest creameries in Vermont for some time."

Not only is all the glassware used for testing milk and cream passed upon by the Experiment Station, and those found incorrect discarded, but, in 1899, for 233 licenses granted for operating the test, 27 were refused. The following year, 21.1 per cent. of those applying for licenses were refused. Up to July, 1906, 593 certificates of competency to operate the Babcock test have been granted and 59 have been refused. We need a similar law in Canada. Is it any wonder patrons have little faith in the test under conditions as at present. A case came under our notice recently where a factory pays by test, and all samples were read from 3.4 to 3.7 per cent. fat. This struck us as being rather strange. On inquiry, we found that all those patrons whose milk tested below 3.4 were raised to that figure, and those above 3.7 were lowered to 3.7. Man, thou art a wonderful creature, and thy ways are past finding out!

Effect of Freezing Milk on Creaming, Churning and Quality of Butter.

During the winter, in all northern countries, it is difficult to prevent freezing of milk or cream on the farm, and especially during transportation to the creamery. The results from several trials by the Vermont Station indicate:

1. The skimming of the milk by a centrifugal machine (separator) was unaffected by exposing the milk to freezing weather for 12 hours before creaming.
2. The ripening of cream and the completeness of the churning were not affected in any way by the freezing of the milk.
3. Freezing of the milk tended very slightly to lower the grade of the butter. The effect, however, was so slight as to be almost negligible, although in the lots held in cold storage for two months, the difference was a full point in favor of the unfrozen lots.

The Effect of Age of Cows on the Yield and Quality of Milk.

The question is often asked, When is a cow at her best? The conclusions reached are based on a careful study of 99 cows (chiefly Jerseys and grade Jerseys), representing 427 year-records made during nine years at the Station. The results are tabulated, and show:

1. A gain of one-sixth in the milk flow in the third year over that given when two years old; of one-fourth when the cows are four to five years old; of one-third when they are from six to ten years old; and the attainment of substantially maximum flow by the fifth year.
2. A tendency to drop the total solid percentages of the third and fourth years, as compared with the second 1 per cent.; of the fifth to eighth years, 2 per cent.; of the 9th to 11th years, 3 per cent.

3. A tendency to drop the fat percentages of the third and fourth years, as compared with the second, 2 per cent.; of the fifth to eighth years, 2½ per cent.; of the ninth to eleventh years, 3 per cent.

4. A tendency to drop the solids not fat percentages, of the third and fourth years, as compared with the second, not at all; of the fifth to the eighth years, 1½ per cent.; of the ninth to eleventh years, 2 per cent.

5. The quality changes are slight, but the general trend is distinct, the figures being:

	2nd year	3rd to 4th year	5th to 8th year	9th to 11th yr
Total solids..	14.98%	14.87%	14.68%	14.63%
Fat.....	5.43%	5.34%	5.30%	5.27%
Solids not Fat	9.55%	9.54%	9.39%	9.34%

Not only was the average heifer's milk a shade richer than that made in the next two lactations, but the latter is richer than that made in subsequent life.

These results are contrary to the commonly accepted notions. Most people think a heifer's milk is poorer in fats and solids not fat than it will be after she becomes mature. The author concludes, "That heifers practically strike their gait, so far as the quality of the flow is concerned, in their first lactation, and that whatever the effect of advancing years upon milk quality may be, it is not profound enough to be of importance until old age is imminent."

Record of Vermont Station Herd from July, 1905, to July 1906.

The average record of 52 cows in milk on the average 315 days was, 4,657 pounds milk, testing 14.58 per cent. total solids, and 5.14 per cent. fat; 239.1 pounds fat, equivalent to 279.1 pounds butter, per cow. The food cost was \$51.76; grain cost, \$21.48 (per cow). The cost of 100 pounds milk was \$1.13; of a pound of butter 20.3 cents. The average income from butter was \$83.71, and the value of the manure constituents of the feed, \$33.15 (per cow).

POULTRY

American Poultry Association Convention.

DECIDE TO PUBLISH SEPARATE STANDARDS FOR EACH BREED.

The event of last week in poultry circles was the thirty-second annual convention of the American Poultry Association, held in Niagara Falls, N. Y., August 13th, 14th and 15th. The American Poultry Association is an organization representing the poultrymen of the United States and Canada, and its principal business has been the publication and periodic revision of a work called The American Standard of Perfection, an illustrated volume, which describes in detail each variety of practically every breed of poultry known on the continent of North America. In addition, the association considers all questions pertaining to the poultry industry of America, the promotion of the interests of poultry-breeders in general, and of members in particular, and the encouragement of poultry exhibitions held under its rules and regulations. Membership consists of five classes: (1) Life members, for which a fee of \$10 is charged; (2) any poultry association or society organized for the purpose of holding an annual exhibition may become, collectively, an associate member, by paying a fee of \$10; (3) specialty, i. e., breed clubs, entitled to membership on a similar basis as the foregoing; (4) ordinary poultry societies not coming under above heads; and (5) branches of the A. P. A., which may be organized in any State or Province, or any district composed of a combination of adjoining States or Provinces, not exceeding six in number. The membership of these branch associations is made up of life, associate or society members of the A. P. A., and each branch association, through its properly accredited representative, is entitled to one vote at meetings of the A. P. A. for each five members of the branch who are not present at roll call. The idea of the branch associations (which, by the way, have been only recently provided for) is to extend the scope and representative character of the A. P. A. beyond what would otherwise be possible.

Naturally, an organization of such scope and importance is subject to criticism, and there are those who aver that the American Poultry Association arrogates to itself monopolistic privileges, and by charging a round price for its Standard of Perfection, and carefully copyrighting the same, levies an exorbitant charge for the service it renders. Not denying that there may be a modicum of truth in the assertions, the fact remains that this body has contributed wonderfully to the uplift of the poultry industry in America.

Indeed, it claims to be the leading live-stock organization on the continent.

The thirty-second annual convention was called to order by the retiring President, Grant M. Curtis, who presided until the stage "new business" was reached, when he vacated the chair to make way for President-elect C. M. Bryant, of Wollaston, Mass., who, in common with the full compliment of officers, had been previously elected by mail ballot. While the sessions were chiefly devoted to business, there were also some excellent addresses, illustrated by lantern-slide views, and the whole program was officially designated as the thirty-second annual convention of the A. P. A. and Poultry Institute.

The first important item of business was the report of the Election Commissioner, Fred L. Kirmey, Morgan Park, Ill., whose account of his stewardship came near precipitating a squabble. The system of electing officers by mail was decided upon at the 31st convention of the association held at Auburn, N. Y., January 1907, and the recent elections are the first held under the new plan. The constitution as amended at the meeting, provides that the election of all the officers of the association shall be by mail, except in a few cases, otherwise provided for by the constitution, and shall be conducted under the direction and control of the Election Commissioner, himself elected by majority vote at each annual meeting. His final report of the results shall be verified and certified to by a Board of Review, this board to be elected by ballot at each annual meeting of the association from among the members present; no member of said board being either an officer of the association or one of the candidates for office. Practically all the officers are elected annually. It was also provided that the place for holding the annual meeting should be selected by mail vote once in three years, the five places receiving the highest number of votes in the first ballot to be resubmitted for a second vote.

The Election Commissioner reported that 552 members of the association had voted for 118 candidates, and 49 different places for holding the annual meeting. The task of determining the successful candidates was an exceedingly difficult one, and the pages containing the records were on a pack of sheets nearly a yard square. The place finally chosen for the annual meeting was Niagara Falls, N. Y., which, under the constitution, will be the foregathering place for two more years. The slate of officers reported elected were as follows:

President, C. M. Bryant, Wollaston, Mass.; First Vice-President, H. V. Crawford, Montclair, N. J.; Second Vice-President, Miller Purvis, Peotone, Ill.; Secretary-Treasurer, Ross C. H. Hallock, St. Louis, Mo. Executive Board Members for three year—Wm. McNeil, London, Can.; Theo. Hewes, Indianapolis, Ind.; Grant M. Curtis, Buffalo, N. Y. Executive Board Members for two years—Geo. D. Holden, Owatonna, Minn.; David A. Nichols, Shelton, Conn.; S. T. Campbell, Mansfield, Ohio. Executive Board Members for One Year—T. F. McGrew, Washington, D. C.; Reese V. Hicks, Knoxville, Tenn.; Geo. A. Barnes, Battle Creek, Mich.

On motion the report of the Election Commissioner was accepted, and nominations for the Board of Review followed. Mr. Hicks, of Tennessee, nominated a complete board, consisting of Jas. L. Nix, Penn.; H. P. Rankin, Nebraska; Dr. E. M. Santee, Washington, D. C.; W. R. Fishel, of Indiana, and Lester Tompkins, of Massachusetts. One or two other nominations were offered, but on motion the meeting occurred in the slate nominated by Mr. Hicks. One member remarked the facility with which they had been named, which elicited the interesting bit of information that the list had been decided upon at a preliminary meeting held before the convention opened. Later in the convention the Board of Review reported, confirming the report of the Election Commissioner, whereupon Mr. Crawford, the Vice-President elect, resigned, in favor of Mr. Wm. McNeil, of London, Ont., who had received the largest number of votes for the office, Mr. Crawford having received but six. In the resulting melee, it was explained that Mr. McNeil, on account of his age, had not wished to assume the responsibility of the office, although willing to act on the board as representing the recently-organized Ontario branch, of which he is President. However, Mr. Crawford's wish was respected, and his resignation accepted.

On Tuesday evening a lantern-slide lecture was given by Prof. Graham, of the O. A. C., on what the general and Provincial Governments of Canada are doing in behalf of poultry culture. The following figures show the Dominion and Provincial appropriations in aid of the poultry industry:

Dept. of Agriculture, Ottawa	\$10,600.00
Central Experimental Farm, Ottawa	4,000.00
Nappan, Brandon, Indian Head and Agassiz Stations.	350.00
Province of Ontario—	
Agricultural College, Guelph	5,335.00
Province of Quebec.....	600.00
Winter Fairs, etc., Guelph	2,500.00
Province of Nova Scotia, Truro College, \$500 and	1,800.00
Province of New Brunswick	
Province of Prince Edward Island	
Province of Manitoba	350.00
Province of Alberta, about	3,000.00
Province of Saskatchewan	1,300.00
Province of British Columbia	
Total,	\$29,895.00

One of the features of Wednesday's sessions was President Curtis' exaugural address, in which, among other points of interest, he told the association that since the Auburn meeting, seven months ago, authorizing the organization of branch associations, ten branches have been organized, including one in Ontario. In Canada the association had about 15 members a year ago. This year there were 25 new applications for life membership from Ontario alone.

Under the head of finances, he presented a financial statement, showing a balance in the treasury of \$8,103.60. Owing to the sickness and death of the late Secretary, Mr. Orr, the duties of this office fell on President Curtis.

An important report was that of the committee on the proposed standard for judging dressed poultry and eggs. They recommended that the association publish as soon as convenient an illustrated Standard of Perfection for the judging of market poultry and eggs, with text and illustrations. A permanent committee to carry out this plan was suggested. Franklane L. Sewell, the artist officially employed by the association reinforced this recommendation with a lantern-slide lecture, showing the need for such a standard.

Later the convention heard the report of the committee on the advisability of using color plates in the next revised edition of the American Standard of Perfection, to be issued in 1910. The committee reported in favor of such color-plate illustrations. The present standard is illustrated with black-and-white engravings.

At this stage Mr. Curtis left the chair, and moved in amendment a lengthy resolution, to the effect that the association undertake instead to begin the publication of a series of separate standards for each of the leading breeds; these separate standards to be much more full than the present limited space devoted to each breed in the general standard. We would have these illustrated with color plates, and anticipated that a wide sale could be found, at, say \$1.00 per copy; the price of the present standard being \$1.50. The publication of the separate standard should not interfere with the periodic revision of the main standard, which he considered would still have a considerable sale among judges, and among men interested in several breeds. Mr. Curtis' plan is to publish but one of these separate standards each year, selecting the breed which is most numerous exhibited at the poultry exhibitions, according to returns of exhibition secretaries up to March 1st next; the second breed taken up to be chosen in a similar manner, and so of the third, and so on.

Too Many Males.

EDITOR FARMER'S ADVOCATE:

A number of cases have come under my observation this season in which infertile eggs have been the rule in flocks where a large number of male birds, in proportion to the females, have been used. The difficulty comes out of the fact that where the males are numerous they interfere with one another. This is especially likely to occur early in the spring just when one is most anxious to have his few early broody hens do well, for at that time of the year the winds are about the hen house, stables, stacks, etc., where they are all close together. One male bird will not allow any attention to hens on the part of another male while he is in the same vicinity. As the weather warms up, and the flocks spread out over wider range the eggs become more fertile.

Many male birds are not necessary and are detrimental to the hens. Any one who has given the matter attention must have noticed that a male running with a large number of hens gives his attention entirely to these which are laying and not only to those laying but to those which require attention, while when the males are numerous they force their attention upon hens which do not require it, to the detriment of the hens.

A mistake is made by many farmers who follow fanciers in the number of females kept for each male. From eight to twelve are all that one male will look after when shut up in a run. When he is on free range it is quite a different matter. Very few farmers keep more than hens enough for two males or three at the most. If more than three males run on same range shut up while the other group is with the hens, the two groups changed each evening when the birds go to roost. This is especially necessary if one has early broody hens and wishes them to have fertile eggs while the weather is still chilly.

W. J. THOMAS.

Paying Flock with Old Hens.

EDITOR FARMER'S ADVOCATE:

I notice in a recent number of the FARMER'S ADVOCATE what Mr. Ernest Hazell says re old hens for hatching purposes, and also what he says of the man who will recommend them. However, at the risk of his bad opinion, I must say that the probability is his old hens were very late to quit laying the previous season and so were late in molting in which case they rarely lay till late in the season. I have found hens that molted early in the fall are nearly as good winter layers as early pullets and better far than late pullets and are also first class for hatchers in good season. I have now (August 10th) most

of my White Wyandotes and White Leghorns well into, and some nearly through, molt; a few of them, chiefly pure-bred crosses, are still laying an egg every three or four days. Both this season and last I have noticed that while I only had about six or eight such cross-bred females they have been the very earliest and quickest molters and almost all of them have laid through the molt. Last winter for lack of as many pullets as I had room for I held over a bunch of White Leghorn hens among them some I brought from Ontario in 1904, and I have at least five that were more than a year old hens then, but they molted early last season and were and are among the most satisfactory layers of this season and my returns in eggs are very decent, though not remarkable, for the past season. As I started to supply a hotel on March 1st last I have complete returns since then; up to then I sold practically no eggs although we had used quite a number, but the weather up to February 10th was quite severe enough to excuse any hen from laying. From March 1st to July 31st I sold eggs to the amount of \$140. We used at home at same price rate \$30., and for hatching \$25, making a total of \$195. Of eggs from a flock of, at no time more than eighty fowls and at the last only sixty-eight as we killed one occasionally, and out of this number were the hatchers and brooders for over 300 eggs and 160 chicks, which I consider a fairly respectable showing as I was not able to give them all the attention they deserved.

A. B. SMITH.

Horticulture and Forestry

Brandon Horticultural Exhibition.

A very creditable display was on view on the 22nd and 23rd inst. at Brandon City Hall. Amateur and professional gardeners were both well represented and several stands were filled for exhibition only by local public institutions and from outside. Of the local exhibitors Senator Kirchoffer, Messrs. Geo. Miller, S. Gilmore, Wm. Harper, W. Longstaff, Duncan McPhail and T. C. Hughes were the principal winners, whilst the local nurserymen, the Spring Park, Fred Shives and Fleming, all had exhibits which in cut and pot flowers and in vegetables spoke well for their skill and care. The Brandon Asylum showed excellent flowers and vegetables of which some musk melon were specially noticeable. The Parks Board had a small showing of cut flowers and the Experimental Farm had a long table displaying some very fine cauliflowers, drum head cabbage and potatoes amongst their exhibits. The Spring Park Nursery took the Fleming cup for a very fine show of cut flowers from bulbous plants. The dahlia collection of Mrs. Murphy took the Doran cup and her gladioli,

deservedly annexed the Spring Park Nursery prize. This last named company secured the Warner cup for best collection in the show of cut flowers, and the society challenge cup for the most meritorious all round exhibits. The exhibit of the McKenzie Co. house plants was excellent in every way. Perhaps the most interest was excited by a display sent up by Messrs. McPhee, from Nelson, B. C., under the auspices of the 20,000 Club; this included some very excellent peaches and a practically perfect basket of cherries with apples, pears, plums and soft fruits which however, did not stand the long journey. Exhibits from other parts of the Dominion were some tomatoes from Mr. Weeks, of Kelowna, B. C., and some apples from Mr. Lyall, of Portage. Mr. Weeks in his covering letter said that the season there had been unfavorable for tomato crop, being cool and with heavy showers. Mr. Lyall of Portage reported that he had lost a considerable part of his apples this year through the severe winds.

Plum Pickers Lend Your Help.

The efforts of our horticulturists to develop a variety of plums that will bear prolifically and be adapted to our climate conditions are most commendable and should be supplemented wherever possible. In our wild species of stone fruits there are some trees that produce better fruit than others and it naturally follows that under cultivation such trees would require less work to produce from them a distinct variety bearing valuable fruit than would trees that naturally bear smaller and poorer quality fruit. The discovery of a superior strain or variety of plum among the wild species is largely a matter of chance and observation. Every one who goes out to pick plums along our rivers where the fruit grows naturally has an opportunity of helping the expert horticulturist by watching for the best fruit and sending it to our leading nurserymen who take the pits in hand and proceed to propagate for a new variety and by cultivation improve the size and quality of the fruit. In this way new varieties are produced but when once produced they are propagated by budding or grafting, as the seed of a plum, cherry or apple tree does not necessarily produce a tree with fruit identical with the first parent.

The plum is sometimes spoken of as a northern tree fruit and this is true so far as native plums are concerned, but we have not yet secured a cultivated variety that is as hardy as the native sorts, and this is the object of horticulturists. Plum pickers should therefore watch for the best specimens and send fruit to members of the Western horticultural society, the past president of which Mr. Buchanan of St. Charles, Man. is making a specialty of plum growing, or if they prefer to the experimental farms or a well known nurseryman. But let us see if we cannot get plums that will excel all others for quality and hardiness. The task is not impossible, for all cultivated varieties have been evolved from native species and what man has done man can do better.

Good Vegetable Season.

However backward the season has been for grain growers it has had no deterrent effect upon the vegetable growers on the outskirts of the city of Winnipeg. Last week Mr. K. de Jong, one of our Holland immigrants, who raises vegetables for the Winnipeg market favored us with samples of his cabbage, cauliflower and tomatoes. The cabbage weighed sixteen pounds, the cauliflower measured eleven inches across and was a most beautiful, pure white, while the tomatoes were on the vines so close that they rubbed together. The latter were the early Anna variety and are ripening nicely. Our market gardeners teach us a useful lesson. They manure heavily and cultivate thoroughly which warms the soil up and matures the crops from ten days to two weeks earlier than those grown upon the land with ordinary treatment. Land in the Red River Valley has always been considered very rich, but manure and cultivation instead of making growth over rank simply hastens a crop on to maturity and seems to give a proper balance to the plant food in the soil.

Forestry About Brandon.

The Brandon district is these days devoting considerable attention to the subject of forestry as applying to the formation of windbreaks. This portion of the province is particularly liable to be swept by repeated wind storms and any knowledge that can be acquired to enable farmers to meet these attacks is exceedingly valuable. Several farmers have for some years now given the matter attention and amongst them are Mr. Mansfield near Forest. His farm is exposed naturally to the full force of any hurricane that comes along but he has succeeded in raising very satisfactory defences in the shape of rows of trees. He finds the maple and spruce the best, but close run by the Russian poplar. Rows of these some seven years old, have now attained a height of twelve feet and over, sufficient to meet the purpose. There is also on the south side, a good substantial hedging of Carraganna or Siberian pea. The main direction of the bluff is west to east with an occasional cross row or clump facing north and south. Under the protection of these effective windbreaks Mr. Mansfield has a fine showing of flowers of many varieties which do not appear to have suffered from any thing but an occasional extra heavy fall of rain. Mr. Mansfield also runs a good herd of pure bred Shorthorns headed by a very fine young bull, Gaylad, purchased a year ago from Mr. Donaldson, of Woodstock, Ont.

Reverting to the forestry subject, another grower of note is Mr. Stewart, near Oak River, who has planted regularly during the last four or five years. Some remarkable growth of young maples are to be seen here, some of this season's being eight feet in height with two to three feet laterally. Maples form his staple tree, with a sprinkling of poplars, willows, spruce and other shrubs. Mr. Stewart took the diploma this year of the Brandon Horticultural Society 'for the best planted, formed and cultivated windbreak, plantation or roadway tree planted within the period of one, two or three years.

FIELD NOTES

Brandon Farm Crops.

The Experimental Farm at Brandon has suffered in its grain crop from the series of high winds which have prevailed during the summer, notwithstanding the wind-breaks which are arranged as skillfully as experts know how. This very fact, however, is of importance because it enables one to see which varieties stand up best under adverse conditions. In wheats the Red Fyfe has suffered a little, the Preston and the Percy scarcely at all and the Riga not any, but the latter gives so much smaller a yield than others that it is scarcely worth trial in practical farming. As regards early maturity the Riga is first the Preston second, with the Red Fyfe some ten days behind. In oats the old "Banner" leads the way in all respects. Experiments are now being made with (a) smutted grains without further treatment, (b) treated with a spraying of formalin, (c) just dipped in formalin, and (d) bluestoned. Lot (a) shows smutt all over, lot (b) at a guess, forty per cent. of smutted grains, lot (c) a very slight taint and lot (d) is hardly a fair test as the bluestone was evidently too strong a dose and killed many grains as well as the smut.

In "corn" some interesting tests are to be seen with acclimatized seeds and some seven varieties were planted—the difference between these and the seeds from warmer latitudes is most marked. The former, though of smaller growth, are weeks ahead of the latter and, if the fall prove in any way favorable, look like ripening satisfactorily, whilst the unacclimatized product do not appear to have much hope of doing so.



STERLING'S ORCHARD, KELOWNA, OKANAGAN VALLEY, B.C.

The final reports in this test should be looked for by Manitoban farmers carefully and, if Mr. Murray is as successful as he appears likely to be in producing the required article, there ought to be many trying results with his seeds.

The orchards have also suffered this year from a severe attack of blight and several of the older trees have lost some of their best limbs.

The best showing all round is in vegetables of which a fine exhibit was made at the Brandon horticultural show.

Generally speaking a walk round the farm shows what is perhaps the most interesting and instructive of results, a partial failure to overcome the adverse workings of nature, thereby enabling the management to report what not to do as well as what to do.

Should have Honest Measure of Lumber.

EDITOR FARMER'S ADVOCATE:

There does not appear to have been any action taken by the Dominion Government upon the finding of the house committee that investigated the complaints of exorbitant prices of lumber and reported a combine in the lumber trade. Independent of this investigation every one is convinced of the combine, and while our papers speak of it as the alleged combine every school knows it to be the real thing.

It was reported in the press some time ago that the loggers at the court had on hand, an over supply of logs and that they were arranging to reduce the output in order to sustain prices, meantime the prices have gone up.

In this lumber trade there is one point that the consumers should insist upon and that is full measure. Lumber is practically the only commodity that a dealer can deliberately sell short of measure, and the evil should be remedied. When a man buys 1,000 feet of lumber 1½x3½ inch scantling is sold for 2x4; ¾ inch lumber for 1 inch; 1½ inch plank for 2 inch and the same all through the bill. Why should not a lumber dealer be compelled to give full measure?

Another feature of the lumber trade that requires regulating, and that is, that notwithstanding the shorter haul on lumber from Western Ontario from points that are practically within our own province and consequently paying less freight rates the price of that lumber is no less than that, that is hauled over the mountains.

Building operations all over the west have been curtailed on account of this iniquitous lumbermen's organization. The towns have suffered as well as the country. It is a case of many suffering for the benefit of the few. Let us see the federal government lending its help to the western provinces that are trying to crush the octopus.

—Rapid City, Man.

M. TURNIFF.

Events of the Week.

CANADIAN.

Toronto Exhibition was opened on August 27th by Earl Grey, the Governor-general.

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The Grand Trunk Pacific expects to be able to haul this season's grain on the line west of Portage.

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The telephone girls' strike at Fort William has been settled by the deportation of the chief operator who was brought in from the States.

* * *

Capt. Leo. Nobascoff, who has been lecturing upon Tolstoi in America, has been trying to induce the wandering Doukhobors to return home, using as a persuasion a message to them received by him in a letter from Count Tolstoi.

* * *

Hon. Dr. Pugsley, ex-premier of New Brunswick, and Hon. G. P. Graham, at present leader of the Ontario Liberals, have been chosen to succeed Hon. H. R. Emerson and Hon. C. P. Hyman, respectively, in the Dominion Cabinet.

* * *

Saskatoon butchers have closed their shops because of what they consider the undue severity of the city health by-law. The authorities are not willing to make the conditions less severe, and a co-operative meat market with full sanitary equipment is being discussed.

* * *

At an Indian "pottatch" held at Alert Bay, B. C., two Indian girls were sold, one for \$1,000 in cash and the other for 1,400 blankets. This practice has been known to exist for many years, but this is the first time definite proofs have been obtained and the government will make a full investigation.

* * *

At the Dominion Rifle Association meet now being held, Sergeant Welford of the 90th, Winnipeg, won the Walker prize; Capt. Duff Stuart, Vancouver, captured the Harold L. Borden trophy; the Toronto Royal Grenadiers took the Coates cup; the London Merchant's cup went to British Columbia.

* * *

David Taylor of Bresaylor, Sask., was trampled to death by a team of frightened horses. Mr. Taylor served through both Northwest rebellions, being arrested by Louis Riel along with Thomas Scott who was shot at Fort Garry by the rebels in 1870. In the affair of 1885 Mr. Taylor belonged to the Battleford guard and lost all his property at that time.

One of the most terrible disasters that Canada has suffered for many years occurred on August 29th, when the new steel bridge undergoing construction at Quebec collapsed and the whole southern half is a ruin. But that loss is light compared with the fact that out of the ninety-two men at work on the bridge at the time, only eight are up the the present known to be alive. It is believed that the anchor pier gave way. The destroyed portion is seen in the illustration appearing in the August 14th issue of the FARMER'S ADVOCATE on page 1276.

BRITISH AND FOREIGN.

The telegraph operators strike is still unsettled.

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A fire at Hakodate, Japan, did fifteen million damage, destroyed 15,000 houses and rendered 60,000 people homeless.

* * *

Raisuli, the Moroccan bandit, is becoming alarmed and has offered to release Kaid Sir Harry MacLean without ransom, on condition his own life and the lives of his family be spared.

* * *

The International Socialistic Congress held at Stuttgart, Germany, adopted a resolution against increased armaments among the nations, and another to lend their influence to the speedy termination of any war.

* * *

The fate of the Deceased Wife's Sister Bill which recently passed both houses of the Imperial parliament prior to the present year is as follows: Times rejected by Lords, 13. Times passed by Lords and sent to Commons and progress blocked, 1. Times second reading passed by Commons, 19.

* * *

James P. Farrell, Irish nationalist, and M. P. for North Longford, along with forty others, has been arrested on a charge of taking part in an unlawful assembly likely to cause a riot, the grounds for the charge being that disorders had accompanied and resulted from meetings held by him and his friends throughout his constituency.

* * *

Three years after the beginning of the sensational trial of the New York and Bermuda company for complicity in the Matos revolution in Venezuela judgment has been rendered against the defendant company, it being condemned not only to pay five million dollars damages, the calculated loss to the government of subduing the revolution, but to pay such sums fixed by a commission and which may very likely amount to ten million dollars more. The present judgment is appealable to the supreme court and from there to the court of cessation.



THE BELLY RIVER, LETHBRIDGE,
Over which the C.P.R. will build a Bridge over a Mile in length, at a cost of about a Million Dollars.

Nelson Morris Dead.

Nelson Morris, the founder and chief owner of the packing house of that name at the stockyards in Chicago, died on the 27th August. Mr. Morris was born in Germany in 1840, and was the last of the trio (P. D. Armour and G. F. Swift being the others) whose business is commonly called the Meat Trust. He was an unostentatious self-made man, and his demise is exceedingly regretted by his business associates.

APIARY

Preparing and Selling Honey.

Time and again—and again—have I noticed the slipshod methods of preparing honey comb for market in vogue among ordinary farm beekeepers. A few days since I entered an ordinary grocery store, and spied honey in a showcase that was anything but inviting in appearance to the purchaser. The fact that it sold at all was due to the same quality of honey being on sale in every other store in that town. In other words, better honey could not be had elsewhere in this city.

If one asks those that produced and put up such honey why they do not take more pains to have it of inviting appearance, the answer is that it does not pay or that they have no time for the extra labor necessary.

Now, I am a "farm" beekeeper too, yet find time to scrape the sections clean of propolis, grade the honey, etc. But does it pay? Of course, or I would not do it every year. But listen: It would not pay if I would sell the honey to those storekeepers that purchase such poorly put-up honey. They make no distinction in price between properly graded and prepared and improperly put-up honey.

To make clear what I have said, I will cite a case: To my question as to how much he was paying for honey, a storekeeper answered twelve cents. "Cash?" I asked. "No, in trade. I couldn't pay more than ten cents per pound cash," was his answer. I afterwards sold the honey for fifteen cents per pound in a distant market. The transportation charges did not amount to quite three-fourths cent per pound of honey. I therefore had over four cents per pound as compensation for the labor of putting up the honey properly.

Thinking the foregoing will be an incentive to others to prepare honey properly for distant markets, I will give grading rules and general directions for doing the work.

The best grade is known as "fancy." All sections that are well filled have straight combs, which are well fastened to all four sides of the wood, and the comb surface of which is unsoiled by "travel-stain" or otherwise, and that have all the cells sealed except the row of cells next the wood, and an occasional cell, belong to this grade.

The second grade is designated as number one honey. To go into this grade, the comb must be fairly straight and the sections fairly well filled too. One-eighth part of the total surface can be unsealed or soiled, or the entire surface slightly soiled.

Number two honey must have three-fourths of the total surface filled and sealed.

Any sections below the number two grade should not be sent to a distant market. The comb had better be cut out and sold as "chunk honey" around home. Yes, even number two honey does not sell well in a distant market, so one should see first whether this grade cannot be sold in the home market for as much, or more, before sending it away.

In addition to grading honey, it must also be classified according to color, using the terms white, amber and dark. To illustrate, there will be fancy white, number one white, fancy amber, etc. The wood of the sections must also be well scraped of propolis. If it's not done, a fancy price will not be secured for fancy honey.

The scraping can be done with an ordinary butcher knife, if the cutting edge is fairly straight. I have even used sandpaper to clean the wood, so it had a fine inviting appearance.

The twenty-four section cases are most used, and honey dealers generally prefer honey in them to having it in odd-sized, homemade cases. They say that retailers buy standard-sized cases more readily than odd-sized ones. The weight of the empty case and the weight and the grade of the honey should be put on each case; but honey dealers do not want the producer's name on cases. Only one grade should be put in a case.

The cases must be crated when sending to a distant market. A crate may be made to hold from four to nine cases. I put old paper, or straw, or coarse hay on the bottom of the crates. Paper is also stuffed between the cases and the insides of the outsides of the crates.

Comb honey must be handled very roughly by the trainmen to break when crated in the described manner. To facilitate the handling of the crates, handles should be nailed on their sides. A caution card should be put on each crate.

Now, here is something that is of importance: If the cases are so packed in the crates that the glass is exposed, railroads charge one and one-half first-class rates; if it is not exposed, the honey will go at first-

class rates. I pack the cases so the glass sides are in the center of the crates.

The rating of a firm with which one intends to deal should always be ascertained before entrusting them with the honey. One's banker will look up the rating of one firm, generally without charging anything for it.

Wisconsin, U. S.

F. A. STROHSCHNEIN.

MARKETS

The wheat market opened last week with a decided tendency towards higher values. Conditions in the Canadian Northwest made the attraction in wheat markets all over the continent and news from there and Russia furnished the sensations for all the large exchanges. Early in the week weather conditions all over the Canadian provinces were unfavorable to ripening and in districts where harvesting was under way operations were checked. This condition reflected itself strongly in the optional market. Wheat advanced from two to three cents and cash wheat went up to 96c, which is four cents higher than the best prices of the previous week. The report of several members of the stock exchange just back from an inspection tour, that the country requires from two to six weeks of perfect ripening weather to ensure even a fair crop, coupled with a wire received from Saskatchewan from Inglis, the American crop expert, who reported serious damage by frost in a good many sections, and who estimated the total exportable surplus of the Canadian west at 20,000,000 bushels had a very natural tendency to hold values firm. C. P. R. and Press reports, on the other hand were more optimistic in tone. The oat and barley harvest was reported in full swing in most sections with some wheat cut, but the bulk not likely ready for the binder before September 10th. By these later authorities wheat is estimated at a probable yield of from twenty to twenty-two bushels per acre, which would give exportable surplus much higher than the grain men's estimate. Everything points to higher wheat values. European reports, though conflicting in a sense, agree that the wheat of that continent is likely to be millions of bushels below the average. Great Britain and France are the only countries from which favorable reports come in. The British crop is now expected to total 50,400,000 bushels. In France everything points to a full crop of good quality, but in Germany and the Danubian States weather conditions for some time have been unfavorable for wheat harvesting. In Germany very little of the harvest is cut, and wheat there advanced three cents per bushel during the week with large imports from America. From a reliable English source the report comes that the Russian crop is almost a complete failure, but this news does not reflect itself in continental markets, and expert opinion is that the seriousness of the calamity in this quarter is overdrawn. America is expected this year to carry over less than 50,000,000 bushels, the smallest reserve on record. In the face of all this it is difficult to see how wheat prices can go lower.

Export demand in the fore part of the week was light due largely to the sudden advance of American prices on unfavorable weather reports. As the week advanced the European demand became more active, on Thursday Liverpool prices advanced a penny in the hundred and more went forward. There was a slight falling off in wheat receipt here this week or the week before, 423 cars being reported in comparison with 572 last week, and 208 for the corresponding week last year. The general impression is that the old wheat is now pretty well cleaned up, and that receipts, until the new crop begins to come in, will show increasing decline. The total visible wheat in Canada on August 31st was 7,824,830 bushels; for the week previous it was 8,375,424 bushels.

In sympathy with the advance in wheat the oat market is stronger and 1½ cents higher than last report. This grain seems in good demand just at present and hard to get. Barley made a fractional advance in conjunction with wheat and oats and is now quoted at 51 cents.

Prices are for the grain in store at lakes: Wheat, No. hard, 96c; No. 1 Nor., 95c; No. 2 Nor., 91c; No. 3 Nor. 88c. Futures are October 97c; December 98c; May, 104c. Oats, per bushel 41½c. Futures, October, 41c; December, 40c; May, 00c. Barley 51 cents.

PRODUCE AND MILLFEED (WHOLESALE).

Bran, per ton	17 50	
Shorts, per ton	18 50	@ 19 00
Chopped barley and oats per ton	24 00	
Chopped oats per ton	27 00	
Chopped barley per ton	22 00	
Hay (baled) per ton in car lots		
(prairie)	10 00	@ 13 00
Timothy	13 00	@ 14 00
Potatoes per bushel	60	@ 70
BUTTER—		
Fancy fresh made creamery prints	25	
Boxes, 56 lbs	24	
Boxes, 14 and 28 lbs	24	
Fancy dairy prints	22	@ 24
Dairy in tubs	19	@ 20
Cheese, Manitoba at Winnipeg	10	
Eggs, Manitoba, fresh f. o. b. Winni-		
peg, subject to candling	17	@ 18

LIVE STOCK.

The receipts at the Winnipeg stock yards for the week ending August 31st were unusually light. Export stuff has not yet commenced moving in any quantity, the bulk of the stock arriving being butchers cattle. About fifty cars of exporters went east during the week consigned by Braner and Baxten & McLean. Prices are a little off, the average running a quarter of a cent lower than a week ago, 3¼c. is what the general run of exporters is going at, with an occasional bunch bringing as good as 4c. Butchers stock took a more serious decline. The demand for this kind of stuff fell off seriously, the quality of the stock coming in was below the average and prices broke about three quarters of a cent. Butchers cattle are now running at about 3c. with good ones quarter of a cent higher. The movement in sheep and lambs has been small. A few lambs were on sale of a decidedly inferior quality. Demand for this class of stock is good. Prices for choice butcher's lambs being 7 cts per lb. Hogs are about the same, \$6.75 being the highest for prime bacon stuff.

Export steers off cars, \$3.75 @ \$4.00; butchers' cattle \$2.25 to \$3.25; cows \$2.50 to \$3.00; calves \$5.00 each. Bulls, \$2.50; choice heifers, \$3.00 to \$3.75. Sheep, \$5.50 to \$6.25; lambs, \$6.00 to \$7.00. Bacon hogs, 150 to 200 lbs, \$6.75; heavier, \$6.00; roughs, \$4.00 to \$4.50.

TORONTO LIVE STOCK MARKET.

Export cattle are scarce and the demand for them active, the activity being more largely due to buyers requiring stock to fill space contracted for at Montreal than to the demand in England or the quality of the stock offered.

Export steers, \$4.40 to \$4.85; butchers, \$4.00 to \$4.65; calves, 5½c. to 7c; bacon hogs \$6.50 to \$6.90; fats and lights, \$6.00 to \$6.50; sheep, \$4.50; lambs, \$6.25.

CHICAGO LIVE STOCK MARKET.

Prime steers, \$4.00 to \$7.40; cows, \$3.20 to \$3.60; heifers \$3.00 to \$4.50; bulls, \$2.40 to \$5.00; calves, \$3.00 to \$8.00; stockers and feeders, \$2.50 to \$5.00. Sheep, \$3.80 to \$6.35; lambs, \$6.50 to \$7.65. Hogs, choice, \$6.10 to \$6.30; heavies, \$5.75 to \$6.00.

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HOME JOURNAL

Life, Literature and Education

IN THE WORLD OF LITERATURE AND ART.

St. Clement Danes Church, in the Strand, a place of worship frequented by Dr. Johnson, was filled with a cosmopolitan congregation when the entire service was conducted in esperanto. Among the hymns sung in the new language were "Lord of Our Life" and "Onward, Christian Soldiers." Many of those present were delegates to the esperanto congress just concluded at Cambridge.

* * *

A. J. Flynn, vice-president of the Denver Archaeological society, has made a wonderful discovery in the cliff dweller region of southwest Colorado, it being a place six stories high in good state of preservation and the largest and most perfect building yet found among these ruins. It is constructed of blocks of stone, more regularly cut than those found in the average cliff dwellings. When the shrubs have been cut and its front made clear, it will command a view of the entire canyon in which it stands.

* * *

A famous property put upon the market is Holly Lodge, one of the beauty spots of London, and for many years the summer residence of the late Baroness Burdett-Coutts. In the grounds of Holly Lodge is a little ivy-covered temple covering the legendary stone upon which Dick Whittington halted to listen to the sound of the Bow Bells as he was making his way, a ragged youth with half a crown in his pocket to the city of which he afterwards became Lord Mayor. It was here, too, upon what was once known as Traitors' Hill, that some of Guy Fawkes' fellow-conspirators stood waiting to see the House of Parliament blown into the air.

* * *

The only surviving daughter of William Cullen Bryant, Miss Julia S. Bryant, died recently in Paris. She was seventy-five years old and had lived abroad since 1879. For the first forty-six years of her life she was her father's intimate companion, living with him at Roslyn, Long Island. The year following his death she went to Paris, to live with her cousin, Miss Anna Fairchild. Since that time both have been well known to the American colony and to many French literary men and women. Miss Bryant made several visits to the United States, the last one being in 1894 to attend the anniversary of her father's birth at Cummington, Mass. At the time of death she owned the house where her father was born, which has been opened to the public as a memorial to him.

* * *

A skeleton has been discovered in Gravesend churchyard, England, which an expert has declared to be that of an Indian woman. There are several excellent reasons for supposing the remains to be those of Pocahontas, the Indian princess whose centenary is shortly to be celebrated in Virginia.

The story of Pocahontas is one of the most remarkable of the early seventeenth century—an age that bristled with romance. Pocahontas was the beautiful daughter of Powhatan, chief of the tribe of Indians in Raleigh's old state of Virginia. She was twelve years old when, in 1607, her father captured Captain John Smith, an adventurer.

Smith had been exploring the Chicakahoming river. Having in some way offended the Indians, he was taken prisoner. Powhatan kept him in close captivity for six weeks, before deciding to kill him. When the fatal day arrived Smith was dragged by four muscular redskins to a huge stone. His captors forced him to lay his head down here preparatory to having his brains beaten out with clubs.

Smith's doom seemed to be sealed, when

suddenly Pocahontas, her compassion excited by Captain Smith's terrible predicament, dashed through the circle of Indians, took Smith's head in her arms, and laid her own head with his on the stone, declaring that they should only kill him by first slaying her. This courageous act resulted in Smith's respite, and later Powhatan sent him into Jamestown a free man.

By this time she was alienated from her tribe. In a raid in 1613 she was captured by the British and brought to Jamestown. There she met and married an Englishman, John Rolfe, and became a convert to Christianity. She came to England in 1616, and lived here seven months. When she was about to return with her husband to Virginia she died on board ship off Gravesend in 1617 at the age of twenty-two, and is supposed to have been interred in the parish ground. She had previously given birth to a son, from whom many Virginian families claim descent.

The people of the United States have made efforts to trace the burial place of Pocahontas with a view to having her remains transferred to Virginia, as was recently done in the case of their famous naval hero, Paul Jones.

KEEPING WARM IN THE WEST.

The question of fuel supply and the heating of homes in Western Canada is indeed a burning one. The long winter and the difficulty of obtaining fuel owing to its scarcity and to lack of sufficient transportation facilities makes a problem not easily solved.

Part of the solution is found in the careful selection of heating apparatus when the new house is being built. And just here a knowledge of principles governing proper ventilation is necessary. A system of heating that provides enough warmth only when storm windows are on and doors are hermetically sealed with felt strips, is a poor affair, not worthy the name of "system."

Pure air is a vital necessity to human health, even with the thermometer sounding the depths below zero. Dr. Allen-Davidson says: In our country we are too much inclined to keep window and doors closed in winter, to put on felt strip and to overheat our houses. Fresh air is not freely admitted, nor the foul indoor air driven out. This hot, impure, debilitating air engenders a flabby, languid, non-resisting state of the body generally. The air-cells of the lungs, instead of being toned up and reinvigorated by the expansion of pure air much cooler than the body, are kept in a state of practical inertia, ready for any invasion of disease. The blood is not properly cleansed; indeed the breathing in of such air loads it up with more poisonous matter. Going back to the tissues, this blood gives to each a share of the poison it carries. Is it any wonder that consumption is so alarmingly on the increase? That sore throats, bronchitis, grip and many other diseases are so readily contracted? By living as the majority do we are most carefully fostering the very conditions that enable disease to hold high carnival."

Pure air really heats more readily than impure, being less heavy. Therefore, it behooves every man who is planning ways and means of keeping warm during the coming winter to make provision for enough fuel and suitable apparatus to heat a ventilated rather than an unventilated house. It will mean a decrease in doctor's bills and a very substantial and perceptible increase in health and comfort. Definite and practical information in regard to the various feasible plans for heating the farm home will be found in Mr. Main's article on "Hot Air House Heating", and will well repay thoughtful consideration.

Hot-Air House-Heating.

Most persons with an eye to comfort in the home and who can afford it are installing their heating apparatus in the form of a coal or wood furnace, the choice as to whether it shall be the latter or former being governed by the class of fuel available in the vicinity of residence.

Hot Air heating is no longer an experiment, but a science governed by principles of radiation and circulation. A Hot Air Furnace not only makes it practicable to equalize the heat throughout the house so that all rooms will be of the same temperature, but makes it possible to provide a certain amount of ventilation which can be modified more or less according to the weather and the tightness of the building to be heated.

This article is put forth with a view to giving the farmer a few common-sense ideas on the subject, both of the general principles of heating and of a guide to him in the selection of a furnace; and in addition to this to put him in possession of some of the general features that must be complied with if satisfactory results are to be obtained. We feel that it is important that the ordinary householder should have such information, because unfortunately not all heating contractors or tinmiths are as well posted as they should be or as fully experienced in this line of work as is advisable.

Just a word about the general principles of circulation which, if born in mind will aid in better understanding this article and enable the householder to appreciate more fully the requirements of a hot air heating system. Warm air rises, that is, as soon as air becomes heated it starts to rise. Then it is natural that the hottest air in any room will be near the ceiling and the cold air on the floor. It naturally follows that the impure air will be on the floor, for the reason that it is the oldest air in the room. If the warm air rises to the ceiling at once it is natural that it should be best to put it in the room as near to the floor as possible. It is further natural, that as the cold or impure air lies near the floor it must be taken off as near to the floor as possible. In fact the top-most portion of the cold air ventilators or air ducts should be within six inches of the floor, no higher. The hot air off the furnace rises very rapidly from it and necessarily fresh air is drawn in to keep it supplied. Therefore, if the cold air ducts are connected with the furnace at the bottom of the casing there will be a strong draught through them into the furnace, which you will see will mean that the cold and impure air on the floor of the room will be carried off and give place to warmer air fresh from the furnace. This means a continual circulation, a continual carrying off of the cold air and bringing in of warm air. If the cold air ducts are placed near outside doors and windows it means that a great deal of fresh and outside air will be taken into the furnace. This can be added to in milder weather, at least, by taking some of the air supplied directly from outside.

CHOOSING THE FURNACE.

There are a number of kinds of good furnaces. In deciding between them perhaps the most important thing is to choose a furnace manufactured by an old and established firm and there are a number of such in the Dominion. Furnace manufacturing in Canada is almost entirely confined to Ontario, but the better firms are well in touch with the necessities of this Western country, most of them being represented by Branch Houses in Winnipeg.

When you have decided upon the different makes that you would feel confidence in you can then get from them descriptive booklets and can go into the merits of their furnaces.

There are two distinct lines of furnaces, namely the furnace constructed for burning wood only and the one designed to be suitable for all classes of fuel.

THE FURNACE FOR WOOD ONLY.

This is advisable in districts where wood is and will be for sometime to come the only fuel, because it is designed so as to handle this class of fuel more economically and with less labor in firing and preparing of fuel. These furnaces are used principally now in the Prince Albert and Dauphin Districts, on the Canadian Northern direct line to Prince Albert, the Manitoba and North Western Line and districts, directly North of Winnipeg and practically all of the country east of Winnipeg, but in the territory lying west of Winnipeg other than that mentioned, a combination or coal furnace is desirable and customary.

In choosing a wood furnace perhaps the most important point is to have a good large fire box.

The radiator for a wood furnace should be constructed of steel tubes with cast iron elbows and

heavy castings anywhere where the heat will strike it with extra force. There should be adequate clean-out doors so that the flues of such radiators can be readily cleared of soot. This cleaning should be done frequently, otherwise there will be a great deal of heat lost through the pipes being more or less choked and thus not radiating the heat quickly.

The Fire Box should be made very heavy, all of cast iron and corrugated so as to increase the amount of radiating surface.

The Ash Pit. All the better class furnaces are supplied with an Ash Pit, which is very much better than a Fire Box without an Ash Pit.

The all-wood furnace is comparatively a simple heating apparatus, readily installed and easy to operate and gives very quick results. It of course requires more frequent firing than a coal furnace.

The Casing. A wood furnace can be either cased with galvanized iron or with brick. The latter is preferred by many people for wood furnaces and is probably advisable for two reasons.

First, it is safer in case of any wood work near the furnace as a wood fire makes a very intense heat in the furnace itself.

Secondly, as it saves heat being wasted in the basement and also keeps the basement from getting too warm, which might sometimes be objectionable.

FURNACES FOR COAL AND WOOD.

The most popular furnace at the present time is one for burning coal and which will also burn with more or less satisfaction soft and lignite coals and wood is a furnace made with upper sections above the Fire Pot, principally of steel. In choosing such a furnace there are a number of points to be considered, namely:

The Fire Door should be large, and on the better furnaces is made in two sections, the extra upper section only being used when required, for instance for putting in large blocks of soft coal or wood. Also gives more ready access to the Fire Pot and interior when cleaning out. The general principles of the furnace should be as simple as possible. Simplicity in the construction of any apparatus means more easy operation, less chance of its getting out of order and less difficulty in making repairs when required.

The next most important feature is the radiating surface. There should be the largest possible amount of radiating surface. Every inch of surface, particularly in the portions of the furnace nearest the fire means so much more heat thrown off.

WEIGHT.

In comparing furnaces the weight is the most important item to be considered as against the price. Every pound put into a furnace means so much more in its sustaining qualities. The heavy furnace will invariably outlast the light one and will ensure a more equal and greater radiation of heat. It may be argued that a heavier furnace will take longer to get heated up, but it does not absorb the heat when once it gets hot, it holds such heat and distributes it more evenly and with greater power. Weight in a heating apparatus is much the same as a fly-wheel on an engine.

Furnaces are made of metal which is worth so much a pound. Provided that the consumer knows that he is getting a well made and a well constructed furnace he can judge the value best by the weight.

The Fire Pot. In the Coal Class of furnaces the best grades are made with the Fire Pot in two sections, the upper and lower. The upper section fits into a groove in the top of the lower section and the two are cemented together, making an absolutely air and gas tight construction, but having the advantage of allowing for the replacing of the lower section at any time should it burn out, which it eventually will without having the expense of replacing the entire Fire Pot, as the upper section will probably last as long as the furnace itself.

Further, a two sectional fire pot is better than the solid or one piece fire pot, for in the latter when a fire is in the lower part of the fire pot it is apt to become heated quicker than the upper portion, thus it would expand and the lower part of the pot is liable to crack, whereas with the two sections the expansion is provided for without injury to either section.

The outside of the Fire Pot should be corrugated so as to increase the radiating surface. The size of the Fire Pot in a furnace taken with the weight are what govern its heat capacity, so compare sizes of Fire Pots when comparing different makes, the same as you compare the weight.

THE GRATE.

This is one of the most important features in the modern coal furnace. The most approved Grate and by far the most satisfactory, economical and effective is what is known as the Roller Grate, usually made in four bars, which are three sided with teeth. These four bars are arranged side by side immediately under the Fire Pot and can be turned with a shaker handle. Aggravation of them at regular intervals clears all the ashes from the fire, and turning once night and morning will clear all clinkers, and after a little experience the householder will find that he can keep a fire in his furnace practically the winter through without having it once go out.

Always keep a fresh, clear fire and you will practically never have trouble with clinkers.

In burning anthracite hard coal it is seldom necessary to use a poker, in fact generally speaking, better results are obtained by using the shaker only.

The three sides of these grate bars being concave when turned one against the other cut off the bottom

or dead edge of the fire but close again before any live fuel is allowed to escape.

THE ASH PIT.

This section should be roomy, fitted with a good large ash door and drafts and should be supplied with a galvanized or sheet iron removable ash pan with handle. This when emptied regularly every morning will keep the furnace clean; and having a handle can be carried right outside and emptied, thus keeping to a minimum the amount of dust distributed in the basement of house.

THE DOME AND RADIATORS.

These should be made on as clear lines as possible and when of steel should be strengthened with castings at points where the greatest heat from the fire will strike them.

The Radiator should be large enough to admit of a good draft so it will not clog up with soot and ashes and should be fitted with clean-out doors, that will be readily accessible.

SOFT COAL FURNACES.

A new furnace has just been put on the market, particularly designed for burning soft coal. It is fitted with a cast iron radiator and built very heavy to resist the heat generated from soft coal. It has a gas ring around the top of the Fire Pot. This supplies a blast of cold air or pure oxygen and throws it into the fire all around the top of the Fire Pot. This oxygen meeting with the carbon or gas from the soft coal causes perfect combustion so that the thick smoke usually derived from such fuel and which contains heavy percentages of gas that under ordinary circumstances would be carried up the chimney and wasted, is under this new arrangement burnt. Tremendous extra heat is thus generated and the final smoke is clear.

This furnace also has no direct draft in the smoke pipe and a very simple radiator with large flue, which on account of its size and the strong draft that will be carried through it will keep itself clear. An ordinary coal furnace is liable to become choked up very quickly in burning soft coal. This new furnace will be a great boon to people residing in the soft coal districts and will have a longer life and generate correspondingly more heat for its size of fire pot.

First, on account of the intensity of the heat obtained from such supply and the burning of the gas.

Secondly, on account of the extra weight from it being built heavier.

THE SIZE OF THE FURNACE.

In arriving at this the cubic contents of the house can be figured up very easily, taking the outside dimensions of the house roughly and without allowing anything for the partitions, etc. In this country it is well to have a size of furnace that has a rated capacity slightly in advance of the Manufacturers' estimates as shown in their printed tables. Particularly is this so if the house is exposed, has very many windows or is not very warmly built. Square houses are naturally much easier to heat and hot air furnaces give greater satisfaction in such houses.

If a house has a wing extending out at one side it is sometimes a very difficult matter to heat it with reasonable satisfaction for all classes of weather. A point from which the wind is blowing has a great effect upon a hot air furnace. Sometimes difficulty is experienced in getting certain rooms heated when the wind is in a certain direction. This can be overcome to a certain extent by putting a larger register than might otherwise be necessary in a room so exposed.

In setting up a furnace it is very necessary that great care should be exercised to properly cement all the joints of the furnace, otherwise there will be leakage of gas and dust.

LOCATION OF REGISTERS.

The hot air registers should be placed in all rooms as near as possible to the furnace. The furnace should be located in the basement in as central a position as practicable and the shorter the heating pipes from the furnace to the registers the better results there will be and less waste of heat.

Sometimes four rooms can be heated by carrying one pipe from the furnace, running the pipe up a wall between two rooms and thus heating two rooms on each floor and all from the one pipe, which necessarily must be large. This is very much preferable to carrying individual pipes to each room. The one pipe has correspondingly greater power and there is not the same loss from radiation between the furnace and the room.

PIPE AND REGISTER CAPACITY.

The hot air pipes for the heating of each room should be of sufficient size to supply the hot air capacity required by such room, that is the size of the pipes for different rooms will be varied according to the size of the rooms or amount of exposure. Then again the registers should have a capacity equal to the size of the pipes.

It will be understood that it would be a waste of money to put a large register in a room and a small pipe, as the register would not then be operated to the full extent of its capacity. On the other hand if the register or the pipe are not large enough the supply of heat delivered into such room will be insufficient.

The manufacturers supply tables covering such matters in their Furnace Catalogues and it gives the householder an opportunity of seeing that such installation is up to the standard.

THE COLD AIR.

For ventilating purposes it is sometimes provided

to take a part of the cold air supply from outside, but this should be arranged so that it can be cut off in severe weather and at such times all the air taken from inside. While the hot air is taken into the rooms at the nearest point to the furnace the coldest air should be taken from the farthest points in the rooms. From the hall, as near as possible to the front or outside door; from the kitchen, near to the outside door and from the living rooms, the coldest point of the room, namely near the outside windows.

The cold air registers and pipes should be of a capacity almost equal to the amount of hot air that is being distributed, at least 90 per cent., the balance can be made up by expansion. This is a very important point however and a great many heating plants are spoilt through not supplying enough cold air. It must be readily understood that you cannot take hot air out of a furnace if you do not put air in. In the first place, therefore, it is better to err on the safe side and supply more than necessary rather than not enough.

Cold air is usually taken through registers in the floor, but if carried from the walls of the room should be taken off within five or six inches from the floor as any air above that is warmer and the register will probably not work as a ventilator.

Hot air can be taken into the rooms either through the floor or through the wall. The latter is preferable and is coming more generally into use as wall registers are more convenient and more sanitary.

First, the wall register from its location in the wall does not effect the carpet, whereas with the floor register the carpets of a room have to be cut. The floor register makes a place for the accumulation of dust and dirt. The wall register on the other hand does not accumulate sweepings, etc. Further, the wall register looks nicer and makes it possible to use two registers on each floor from one pipe or in other words, double headers. This cannot be done with floor registers, which must each be supplied by an individual pipe.

ASSISTING THE FURNACE.

A great deal can be done to help the furnace when it is installed under unfavorable conditions, for instance, exposed windows and doors can be protected by storm windows and doors. Cellar pipes subject to exposure from windows in the basement can be covered with sheet asbestos.

PLACING THE FURNACE.

All furnaces, both for wood only and for coal and wood are supplied by the Manufacturers uncased and have to be covered in with either galvanized sheet iron or brick work. The latter is preferred for a "wood only" furnace but for a coal furnace a galvanized iron casing lined inside with asbestos sheeting and corrugated tin is much the better.

These latter galvanized iron casings can be supplied by the manufacturers if specially ordered, but as a rule are made by the Tinsmith or contractor who installs the furnace.

THE CELLAR PIPES.

The hot air pipes are usually made of bright tin plate, but with a little extra expense galvanized iron pipes could be supplied and represent a much more permanent investment. The cold air pipes should always be made of galvanized iron.

RE WALL PIPES.

These should be covered with sheet asbestos, which is a safe-guard for fire protection, as well as retaining the heat in the pipes and saving any waste from radiation between the walls.

THE CHIMNEY.

No matter how good a furnace is, or how well it may be installed, all such care will be of no avail if it is not connected with a good chimney, having a good strong draft. Of course the size of the furnace will necessarily govern the size of the chimney. It must be clearly understood that it is not the furnace that makes the draft, but the chimney. Manufacturers are too frequently blamed for trouble which is entirely due to an inadequate draft flue or chimney. There are two or three simple matters to be considered.

First, there should be no other opening or pipe hole in the same chimney with the furnace unless the chimney is large enough to supply an extra draft. If there is any such opening which has no stove pipe connected in it, it should be closed by a flue stopper.

Care should be taken to see that the smoke pipe is not carried too far into the chimney, otherwise it will come against the back of the flue and thus there will be no outlet to the draft.

If your house is yet to be built have the chimney with a flue of good size, 9x9, and see that the masons in building it plaster the inside smooth with mortar. The smoother the inside of the chimney shaft the stronger will be the draft, and if it is required to operate a stove or stoves as well as the furnace, if possible have an extra chimney or else if only one have it extra large say 9x12. See that it is carried from two to three feet above the highest portion of the roof and if there is any large building near the house which would cut off the draft carry your chimney to a greater height to overcome it.

When more than one flue is required a double flue chimney is much to be preferred to two single chimneys. Such chimney should be built 9x18 with division.

To conclude, the householder should not only use great discretion and care in choosing the furnace, but after that should look after the installation and see that it is properly done and in accordance with the general principles above set forth.

G. EDWIN MAIN.

CHILDREN'S DISEASES

By MARY E. ALLEN-DAVIDSON, M.D.

(Continued from page 1308.)

ARTICLE II.

DIARRHOEA IN CHILDREN.

TREATMENT.

The very most important thing at this season of the year as regards treatment, is to be on the alert for the very first symptoms of any derangement of the ordinary health. Now busy mothers, if your little one hangs on you or is irritable and peevish when you are right up to the eyes in work, don't neglect the appeal and say you must get the work done first. How often we hear the agonized cry "If I had only known. He was not himself but I was so busy, I hardly noticed. The doctor said we should have sent for him sooner." Isn't it true? So remember that your only real work, work that endures is to care for the children. Everything else is of very, very minor importance. Let the beds go unmade or the house untidied if you must, but take time to attend to the child and oh! above everything, take time to grasp the situation intelligently. Don't do things blunderingly, but use all the judgment and common sense you have. Then go to work systematically and intelligently and *keep it up till* the child is better.

Does he rise with a bad breath, or a coated tongue? Is he peevish, or languid? Something has gone wrong and no time must be lost. If the tongue is coated or the breath foul give half a cupful of hot water in which both salt and soda have been dissolved in the proportion of one teaspoonful of each to the pint of water. Follow this by more hot water or cold if the child prefers it. This gives a cleansing wash to the mouth and stomach and sweeps away the foul coating. It also tends to soothe the irritated lining of the mouth and stomach. If the child does not want to eat his breakfast, do not urge it. Give a dose of castor oil to clear out the digestive track. The oil is disagreeable but I know no better household purgative for children. Castoria forms a very good substitute. The object is to effectively empty the bowels. Many recommend that the oil be taken in orange or lemon juice, these disguising the taste. I give a swallow of sweet milk, then put the spoon rather far back in the mouth taking care not to spill too soon. When the child's head is lying back the oil will fall far back and will be swallowed with very little if any perception of its taste. Empty the spoon slowly and give another sip of milk or lemon or orange juice afterwards. Magnesia may be used or any simple purgative. Bathe the face and hands in tepid water. Speak soothingly and quietly but brightly to the child, and induce him to remain in bed "just for a little while." Give a hot foot-bath in which you have put mustard. When you lay him down wrap a warm flannel round his feet. Lay another over his stomach. Get him to sleep if you can. Let the room be airy and quiet, darken a little, the chances are the little head is aching. If it is hot lay a cloth wetted in cool water over the temples. Let him have sufficient covering to feel comfortable. Chilliness is often present at first, indicating depression. If he sleeps until the oil operates, he will most likely feel much better, but be careful for a day or two. Keep the bowels regular, give the cleansing drinks night and morning, and let the food be simple. Restrict the amount of food, giving whey, barley water, toast-water, or white of egg and water, instead of milk, and use only boiled water to drink until the stomach and bowels are ready for work again. Keep quiet for a few days. Remember that a sick boy is one that is on "strike" against work, so make nature's remedy, rest, the ground work of all your treatment.

Thus by rest, cleansing and nutrient drinks, restriction of food, as above, you may ward off an attack of diarrhoea, that if allowed to get established may be difficult to stop.

In the treatment of diarrhoea, three things are to be striven for:

1. To stop the drain from the bowels.
2. To remove the effects of the diarrhoea.
3. To bring the stomach and bowels back to a healthy condition.

Now you are not to think of doing these things one at a time. I have tabulated the results you must work for, in order that you may work intelligently, but you must strive for all these at the same time. How shall you go about this? Shortly so:—

1. To stop the diarrhoea. Remove the cause, give rest, and cleansing.

2. To remove the effects of diarrhoea provide suitable nourishment to replace the waste, from the first.

3. To bring the stomach and bowels back to a healthy condition. Feed wisely and give tonics and care for a long time afterwards.

Let us think of stopping the diarrhoea. What has caused it? An irritation of some kind. Was it chill? Something he has eaten? Put him to bed having given him a dose of castor oil. Rest in bed hastens the cure; movement aggravates the trouble. If he is allowed to run round and get chilled every day, the trouble will be renewed even under treatment, until a serious attack will compel proper precaution.

If the attack is accompanied by vomiting and fever it is likely to prove serious and a doctor should be summoned at once if possible. Where a doctor is not available, a mother must see that the child has a quiet, airy room, and that he is protected from draughts. Keep as quiet as possible, do not lift up and lay down often. Avoid movement. Where vomiting is present have a shallow dish to put under the cheek, turn the head and allow the vomited matter to fall into the dish.

When vomiting starts try the hot drinks mentioned above, placing a hot flannel over the stomach, remembering to protect the bowels by putting a flannel binder in place. Give the drink in sips from a spoon.

If vomiting continues give sips of ice water or small quantities of pulverized ice. Ice, unfortunately, is often impossible to obtain, but give small amounts of water that has been boiled and cooled as cold as possible, often, even when it is thrown off at once. The thirst is so cruel and water, if it only gets time to touch the poor, sore, hot stomach, must give some relief.

A household remedy that often stops vomiting is toast-water. Brown a slice of bread in the oven until it is very dark right through, just stopping short of complete charring. Pour boiling water over this and cool. The water should be the color of coffee and give off a strong, pleasant odor.

Give sips of this often and watch the effect. That is, give several sips at a time, of any of these remedies. When you find something that is retained, gradually increase the amount given as you find the stomach growing stronger.

Another excellent remedy and one nearly always on hand is allspice. Better the whole spice and grind or pound it in a cloth till powdered, as the powder may not be pure when purchased so. Put a teaspoonful in a cupful of milk or water and boil. Give in sips while hot, stirring each time to get part of the spice. This is also astringent and disinfectant to the bowel; it often stops simple diarrhoea and can be used when vomiting is not present, as well. Hot tea, given clear and in small quantities, will sometimes stop vomiting also.

If carbolic acid and glycerine can be obtained, mix one teaspoonful of carbolic with four teaspoonfuls of glycerine and give one drop of this mixture in a teaspoonful or less of water every two hours. Be careful to mix thoroughly.

Bismuth subnitrate, if obtainable, should be tried when vomiting persists. For a child a year old give ten grains three times a day. The bismuth acts principally, by coating the lining of the stomach. Get ten grain powders and mix with water. A drop of laudanum added will help, though this must be used with extreme care, should only be used under a doctor's supervision. Also in serious vomiting try a mustard plaster over the stomach. Put one part mustard to three parts flour, make large enough to cover the stomach well; have warm when applied and leave on for twenty minutes. Have a soft cloth

soaked in camphorated oil ready to put on when plaster is removed and cover this with a warm flannel. The latter should be light as the least weight is often badly borne and very irritating. At the same time the feet should be wrapped in flannels wrung out of hot mustard water. Don't have too hot—test on your cheek. Wring out very tightly. Have another larger flannel outside to protect the bedding from the least after dampness and consequent chill. Keep the flannel hot by placing hot water bottles at the feet. Wrap these in cloths and guard against burning. After twenty minutes remove hot flannels, dry the feet and roll in warm, dry flannels to the knees. This treatment usually controls the vomiting after a time unless very serious.

Any food that causes vomiting should be withheld until it ceases to irritate. For this reason milk is often troublesome on account of the curd. Do not give, instead give whey, meat juices very dilute, barley water, etc. For the diarrhoea after the first large dose of castor oil to sweep out all irritants, the effort must be directed to soothing the inflammation. The bismuth subnitrate recommended for vomiting is very useful here. Also drop doses of laudanum for a child a year old three times a day or oftener if vomited. To disinfect the bowel the salt and soda solution is good if it can be borne. Two or three teaspoonfuls may be given every hour. The allspice mixture, boiled in water preferably, should be tried. In conjunction with these remedies starch injections should be given. Boil the starch and make it very thin, add five drops of laudanum to a cupful of thin starch. Use a fountain syringe and inject very slowly. Give twice a day.

Many astringent remedies are recommended and used by physicians, but these require the oversight of a doctor for their proper administration. If the above remedies fail try giving small doses (quarter teaspoonful or less) of castor oil with half a drop of laudanum and one drop of wine of ipecac every four hours. To get the proportion mix up several doses at once say four,—put one and a half teaspoonfuls castor oil, two drops of laudanum and four drops of wine of ipecac. This soothes the inflamed bowel. During all the courses of the illness, the fever must be controlled. Sponging with tepid water to which brandy has been added is the simplest. Another excellent plan is to give an injection of tepid salt solution (teaspoonful to the pint). If the child shows signs of exhaustion give sips of brandy and water, rub brandy under the nostrils. If the injection is well borne, it may be given slightly cooler the next time.

It must be remembered that when vomiting is present, your effort must be to control it first and then direct your attention to arresting the purging.

Any pause in the vomiting must be taken advantage of to supply food. This should be given in small quantities and in the simplest form. Remember that the weaker the child the more feeble will be his digestive power. As a rule he is more eager for drink than food and at any age may be allowed to slake his thirst with cold water in moderate quantities as often as he wishes. Whatever kind of nourishment be chosen, it must be looked upon as food to be given at stated intervals, not as drink to slake the thirst. Cold water is best and should be used. These fluid foods should be given cold. Great judgment must be used in giving them, giving small quantities at first. For a weak infant teaspoonful doses may be all that it can stand. If the quantity first given be kept down, more may soon be allowed. Plain, freshly-made whey, barley water, white of an egg, veal broth, or beef peptonoids well diluted with water may be used. A few drops of brandy added will prove beneficial if great weakness is present. Not more than five drops for a young child.

Nourishment by the bowel should be resorted to, when, as sometimes happens, the stomach utterly refuses to retain anything. Veal broth, barley water, white of egg, diluted with the salt solution should be injected slowly into the bowel

using every effort to prevent irritation of the bowel. Avoid moving the child as much as possible. A rubber catheter, No. 12, and a glass funnel may be used. If it is not obtainable cut off a foot of tubing of your syringe at the nozzle end. Slip the free end of the rubber over the funnel tube and you will have a ready way of giving nutrient injections. When you want to use your syringe you have only to attach the shortened tube to the hard black rubber nozzle. To give the injection, oil the part and also the nozzle and insert very gently. Pour into the funnel a teaspoonful or two of the fluid. If there is straining or the fluid returns into the funnel raise slowly the funnel a little higher and wait, now a little more, and so on, until nearly a cupful is retained. Wait for sometime and withdraw the nozzle very slowly, pressing with thumb and fingers round the nozzle to prevent straining. Hold the hand with gentle pressure for a time on the part after tube is withdrawn. Two drops of laudanum may be added to the nourishment to allay irritation and insist in retaining it, always bearing in mind that this remedy must be administered with great judgment. Warm olive oil to which one-sixth part of brandy has been added rubbed gently into the skin of the armpits and groin assists in maintaining the nourishment of the body. Dip tips of fingers into the warm olive oil and rub in several times, taking care not to exhaust with fussiness. Now the above treatment will not all be required for one child. Note the conditions present and apply the remedy suggested above intelligently. Use every effort to conserve the child's strength and vitality. Keep away any excitement. Do not allow many persons in the room. Do not discuss his symptoms if he is old enough to understand. Do not expose the body to chill. No full baths to be given, except to reduce fever. Then it is

better to use the wet pack. That is, wring a large towel out of cool water, lay on a dry blanket, roll the child in towel from feet to armpits. Tuck the blankets well round him. This often reduces the temperature and may be reapplied every half hour for three or four times unless the child shows signs of exhaustion or falls to sleep, as often happens on account of the soothing effect of the moisture on the hot dry skin. Treasure every moment of restful sleep. Do not disturb on any account.

But for cleansing wash off parts quickly with warm water, dry with soft cloth and put on fresh clean napkin. Remove all soiled clothes from the room at once.

If the rectum or bowel protrudes sponge gently with warm water and apply a poultice of thick boiled starch.

If the child at any time shows signs of prostration, blueness of the lips, etc., put him into a hot mustard bath and hold him there for five minutes or less if the blueness disappears from the lips. Wrap in flannels and return to his cot with hot water bottles at his feet and sides and a weak mustard plaster (one part in six of mustard) applied to the chest and stomach; let it remain until redness is well established.

After the attack is over remember the digestive system and the whole body is left in a weak, relaxed, irritable state, and requires bracing up by tonics. Iron should be given. Get your nearest doctor to give you a tonic suited to his case or get a bottle of "Gude's" Peptomangan and administer in doses according to age.

While recovering, and indeed for months afterward, the child will be subject to fresh chills. Bear this in mind and dress warmly in woollen underclothing with a flannel binder to protect the bowels.

Here are directions for making the fluid foods referred to above:—

WHITE OF EGG.

White of egg one part; water ten parts; beat or mix until no "string" part remains. Barley water may be used for it, one teaspoonful of sugar to a cupful. Brandy may be added if necessary.

BARLEY WATER. (ALWAYS PREPARED FRESH.)

Tablespoonful of pearl barley in granite saucepan, add a pint of boiling water and stir for a few minutes (on the stove) so as to thoroughly cleanse the grain. Pour off this water and replace by a pint and a half of clean cold water, simmer gently for an hour and strain.

Barley water may be made thicker or thinner according to indications.

WHEY.

Warm a pint of milk to blood heat; add a teaspoonful of "artificial rennet." Break up the curd with a fork and allow to stand till the curd has settled. Pour off whey and boil. This whey can be given to a newly born infant. For food in diarrhoea brandy may be added in proportions required by case, one teaspoonful to a cupful of whey is a good strength and the quantity can be increased according to age and strength. Milk and cream may be added as the digestive powers increase.

VEAL TEA.

Take a pound of lean veal, cut in small pieces, place in a covered jar with a pint and a half of cold water or barley water. Place in a moderate oven and bake for three or four hours. Or the veal may be put in a gem jar and the same quantity of water used. Place in a larger vessel, water coming up two-thirds round the gem jar, and boil for three hours. The oven is best. The jar may be left in all night. Strain and remove the fat.

DON'T WORRY.

"No anxious thought upon thy brow
The watching world should see,
No carelessness! O, child or God,
For nothing careful be!
But cast thou all thy care on Him
Who always cares for thee."

R. W. Trine says: "Fear and worry, and all kindred mental states, are too expensive for any person—man, woman or child—to entertain or indulge in. Fear paralyzes healthy action; worry corrodes and pulls down the organism, and will finally tear it to pieces. Nothing is to be gained by it, but everything is to be lost."

We all know this to be true; we are all aware that worry does no good, but only harm, and yet the remarkable fact remains that the men and women everywhere do waste time and nervous force in worrying. Perhaps there is no sin more common than this foolish one of carrying to-morrow's troubles to-day. Surely we have all enough present burdens to carry, without insisting on shouldering future ones, which are heavy although shadowy. We are quite willing to admit that it is worry rather than work which usually breaks people down. If "care kills a cat"—which is supposed to have nine lives—what chance have we when we will persist in taking such a cruel tyrant home to live with us.

Miller says: "Anxiety enfeebles and wastes one's strength. One day's worry exhausts a person more than the whole week of quiet, peaceful work. It is worry, not overwork, as a rule, that kills people. Worry keeps the brain excited, the blood feverish, the heart working wildly, the nerves quivering, the whole machinery of the life in unnatural tension, and it is no wonder then that people break down."

"Some of your griefs you have cured,
And the sharpest you still have survived.

But what torments of pain you endure
From evils that never arrived."

But you may say, "I am sure I don't want to worry, there is no pleasure in it, but how can I help it?" The answer to that question is a simple one, the remedy is not expensive nor hard to find. It is within your reach, whoever you are. St. Paul gives an infallible prescription, which is sure to cure if it is taken steadily and faithfully. He says:

THE QUIET HOUR

"Be careful for nothing; but in everything, by prayer and supplication with thanksgiving, let your requests be made known unto God." It is not only great troubles you see, but "everything" that bothers us and makes us feel cross and irritable; all the little vexations which meet us so constantly should be brought to God.

"Whether it be so heavy,
That dear ones could not bear
To know the bitter burden
They could not come and share.

"Whether it be so tiny,
That others could not see
Why it should be a trouble,
And seem so real to me.

Either, and both, I lay them
Down at my Master's feet,
And find them, alone with Jesus,
Mysteriously sweet."

If you are allowing the disease of worry to weaken and gradually destroy the peace and joy of your souls; if you are taking into your home a pitiless enemy that will make you miserable and the rest of your family uncomfortable, wake up to a sense of your danger, and begin taking the antidote at once. When you find yourself giving way to anxiety about some possible trouble or difficulty, don't wait a moment. Shut the world out of the temple of your soul; kneel—in spirit at least, if you have no opportunity to do it in body—before the Master, who is both willing and able to help you. Tell Him exactly what is giving you trouble; ask Him to make it work for the best, then leave the matter in His hands, "Casting all your care upon Him, for He careth for you." Why need Him, for He careth for you." Why need you be anxious when He cares for you? Whether the expected trouble comes or not, you may be satisfied that all is well. "Cast thy burden upon the Lord, and He shall sustain thee."

"The clouds ye so much dread
"Are big with mercy, and shall break
In blessings on your head."

Why do we honor our Master by "trying to follow and obey, and bear our burdens too." He offers to be our Guest, and bring with Him the royal gift of a peace which can only be understood by those who possess it. The very word in which this gift is offered are like the sweetest music: "Peace I leave with you; My peace I give unto you; not as the world giveth, give I unto you. Let



A BEAUTY SPOT IN NORTH WALES.

not your heart be troubled, neither let it be afraid." What other leader of men has ever claimed the right to offer such a treasure? He has made good the claim too, as His followers in every age gladly bear witness.

The prophet Micah, in speaking of the Ruler, who should come out of Bethlehem, says, "This Man shall be the peace." It is not only that He gives peace, He "is" the peace. One of His glorious titles is "The Prince of Peace," and how graciously He offers it to all who are willing to trust Him. "Thou

wilt keep him in perfect peace, whose mind is stayed on Thee: because he trusteth in Thee."

"Like a river glorious
Is God's perfect peace,
Over all victorious
In its bright increase.
Perfect—yet it floweth
Fuller every day.
Perfect—yet it groweth
Deeper all the way."

HOPE.

DO SOMETHING FOR SOMEBODY, QUICK!

Are you almost disgusted with life, little man?

I will tell you a wonderful trick
That will bring you contentment, if
anything can—

Do something for somebody, quick!

Are you out-and-out tired with play, little girl?

Weary, discouraged, and sick?
I'll tell the loveliest game in the world—
Do something for somebody quick!

Though it rains like the rain of the flood
little man,

And the clouds are forbidding and
thick,

You can make the sun shine in your
soul, little man—

Do something for somebody, quick!

Though the skies overhead are like
brass, little girl,

And the walk like a well heated brick,
And all earthly affairs in a terrible
whirl—

Do something for somebody, quick!

THE LIVING PRESENT.

One life is all we have to live;

Why burden any day with woe!
It takes a moment to forgive
The injury of long ago:

Why waste a day remembering
Slight that may not have been intended

Why dread the smart or fear the sting
Of blows that never have descended?

Why let the joy unheeded pass
If we may claim it as our own?

Why shape your lips to sigh "Alas!"
When gladness may be in your tone?

The joys we claim with those we give
Should day by day be fairly blended:

One life is all we have to live,
And soon its little span is ended.

—S. E. KISER.



PUDDINGS

"Guaranteed the-Best"

The New Dessert

Delicious, inviting, adds a dainty touch to any meal. Delights the children and pleases everyone.

Easily prepared when you are hurried.

Nothing to add except milk, boil a few moments and set to cool. One package will make enough dessert for twelve people.

Eight delicious flavors to suit the taste:

Raspberry	Lemon
Chocolate	Orange
Strawberry	Tapioca
Pineapple	Custard

"Gold Standard" Puddings are made with scrupulous care and cleanliness, and packed in dust-tight, odor-proof packages.

10 cents each

If your grocer does not have them send us his name and address and we will send you our new 80-page Cook Book Free.

Codville-Georgeson Co. Ltd.

Dept. F, WINNIPEG, Man.



"Thou hast been called, O sleep, the friend of woe, But 'tis the happy that have called you so."

—Robert Southey.

Sleep on a Guaranteed

HERCULES BED

for thirty nights.

Money back if you want it.

If you don't sleep sounder and awake more rested—if you don't think guaranteed Hercules Spring Beds are the best you ever heard of—just say so to your dealer and he will promptly refund your money.

Gold Medal Furniture Co., Limited.

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INGLE NOOK CHATS

INGLE NOOK NEWS NOTES.

There is no ceremonial attached to admission to the Ingle Nook, Willow Glen, a letter to introduce yourself answers every requirement. We shall expect to hear from you again.

* * *

It is the opinion of young Housewife that the fashion department is a great improvement, that she finds among them certain patterns that are just what she has been wanting.

* * *

Subscriber sends us some good recipes, and wants to know if there is any way of getting "mother" in vinegar without a start of "mother." Could some be sent from one part of the country to another without losing its virtue?

* * *

It would be a wise idea for every mother to save carefully the articles contributed by Dr. Allen-Davidson in the issues of August 21st and September 4th. One's memory cannot be trusted to retain all the information in these articles for use at a critical time.

* * *

The Fashion Department finds it necessary to repeat that in ordering patterns one must allow at least ten days for filling the order. These patterns are supplied by a New York firm and every order has to be forwarded there to be filled. Do not forget to mention size when ordering. A word to the wise is sufficient.

* * *

Sister Grace in a private note promises that we shall soon hear from her in regard to the treatment of babies. That will be good news to the mothers. We are all sorry to learn that a stroke of paralysis, from which she is slowly recovering, is the cause of her invalidism.

HOUSEHOLD HELPS IN HARVEST TIME.

That title looked "alliterative and alluring" when I got it set down at the top of the copy paper. Quite impressive, it appeared to me, but after it was there it seemed as if it were going to be a veritable Tom Toddy, "all head and no body," because there was so much to say that it was very difficult to choose just what.

However, this is no time for flourishes and airy nothings. Harvest-time is a stern reality to the homemaker and not to be treated in a frivolous spirit. It has to be faced sick or well, strong or weak, and faced in almost every instance without help, unless there are daughters old enough to give assistance. Neighborly help is usually an impossibility for the simple reason that every other woman in the neighborhood is facing the same struggle.

Here are a few don'ts to begin with:

1. Don't bother with elaborate salads.
2. Don't make layer cakes with fillings and icings or bother with lemon or cream pies.
3. Don't serve fried meat if you can possibly help it. It leaves too many things to be looked after at the last minute before serving a meal.

While quantity at such a time is an important factor in providing meals, quality need not be disregarded and a wise choice of dishes means a very great deal. Men want things clean and well cooked, but their preference beyond that is for foods that are "filling at the price"—if you will allow the expression—rather than for dainty but unsubstantial dishes. Fortunately their tastes are the most convenient to cater to, for the solids are prepared with much less labor and worry.

The question of meat is an important one and not always easily settled. A good big ham well cooked, and a piece of corned beef can be kept for several days if well-covered from flies, and will supply the necessary cold meats. Or, a round of beef may be boiled and eaten hot for dinner and what remains can be sliced when cold. A roast of beef is perhaps the best hot meat to serve at dinner, as it cuts to better advantage than veal or mutton.

Next comes the vegetables—potatoes heading the list. Boil them with their jackets on sometimes; they taste as good or even better, and it takes much less time to wash than to peel them. For use in salads or to fry it is better to peel before cooking them. Cabbage, turnips or large carrots are the best vegetables to serve beside the potatoes, and if any of these are left over they can be fried up with the potatoes lending both increased quantity and acceptable flavor. It is a good plan to cook a kettle of common white beans. They will keep for several days, can be heated up as wanted, and are good served with gravy or fried in butter. Rice cooked in plain salted water is also a splendid dish to serve with hot meat.

When it comes to salads and pickles, stick to those which are most easily prepared and are most substantial. Make up a big bottle of salad dressing, as it will keep indefinitely. Have potato salads—that is with potato for a foundation, garnishing with cooked green beans, peas, carrots, etc., adding a little chopped onion, and some cold boiled eggs sliced. Mix in the salad dressing just before the meal. Boiled beets, peeled and sliced, and covered with vinegar are as nice as anything in the line of pickles, but if you want a variety get half a dozen cans of tomatoes from the store, add a small cup of sugar, spices to taste and a pint of

vinegar, let boil and bottle up. If you have green tomatoes in the garden slice them up and stew them a few minutes with some salt, spice, sugar and vinegar. I neglected to mention cabbage salad which is always good.

Desserts seem to take more time to prepare and count for less when prepared than any part of the meal. Pies are always in demand but should be the simplest in construction, fruit fillings being less trouble than making custards, beating eggs and grating lemons. Puddings are less trouble and are just as much appreciated. If you have eggs and milk a couple of giant tapioca or rice puddings, baked slowly in your big black bread pans are easily accomplished. They can be served with cream, sauce, or a spoonful of canned fruit or fruit juice and eaten either hot or cold. Steamed or boiled puddings, the suet variety with a few raisins and some spice, or a carrot pudding, are always favorites with hungry people, and the pudding sauce does not take long to make.

When it comes to cake, remember that men do not usually care for the soft kinds, all icings and fillings. Let layer cakes be reserved for less strenuous occasions, and make instead a pan of "Johnnycake" with an extra egg or two to keep it moist for another day; an "acre" of gingerbread, not of the too solid variety; a batch of tea biscuits with a few currants and a little sugar; a fruit cake that is tasty but not rich, or a spice cake which gives a maximum of satisfaction for a minimum of outlay and labor.

DAME DURDEN.

A CANARY WHO HAS LOST HIS SONG.

Dear Dame Durden:—I have been reading and profiting by the letters of the Ingle Nook for some time. Now may I come in for a few minutes?

I have a canary bird I got last winter—my brother got him for me on one of his trips. He sang beautifully till the cold weather came, then he brought him home and he has not sung since. Could any of the members give me any information on this subject? He has been well taken care of, and I have increased and decreased his diet but to no effect.

G. S.

(I hope some one else can help "G. S." to recover that canary's song. Just at present I can find no one who will speak with authority on the subject, and my own knowledge is nil. But I hope soon to be able to give her this information unless the members get ahead of me.—D. D.)

FROM THE SAME COUNTRY.

Dear Dame Durden:—"Heather Honey" is very kind to invite me to dinner. How I long to accept her invitation! Thank you so much for the recipe for muffins and gingerbread. I feel quite wild with joy to hear that "Heather Honey" knows Wooler, etc. I also hail from the canny North and I have a piece of heather from "Ross Castle." Do write to me "Heather Honey"; I shall answer by return mail.

NORTHUMBERLAND.

THE FARMER'S ADVOCATE FASHIONS.

N.B.—Order by number and send 10 cents for each pattern to "Fashion Department, Farmer's Advocate, Winnipeg, Man."



4159.—Child's Apron, 4 sizes, 2 to 8 years.



4174.—Girl's Coat, 5 sizes, 4 to 12 years.



6888.—Ladies' Dressing Sack, 6 sizes, 32 to 42 inches bust.

SELECTED RECIPES.

Sponge Cake.—Ten eggs, two cups sugar, two cups flour. Beat for an hour. Be careful to have a steady oven. Half the quantity of each ingredient makes a good sized cake. —SUBSCRIBER.

Syrup Pie.—Make a moderately thin syrup of sugar and water, and to enough of it to make one pie add one large egg, well beaten, a heaping tablespoon of flour, a small lump of butter and a little nutmeg. —SUBSCRIBER.

Potato Salad.—Take half a dozen cold boiled potatoes, cut into small dice sprinkling with a little salt and pepper. Add one small onion which has been cut very fine and two hard boiled eggs chopped up. Just before serving stir in a good salad dressing and lay slices of two more hard boiled eggs on the top as a garnish.

Cabbage Salad.—Slice and chop fine a crisp young cabbage and salt slightly. Add a small onion, a handful of walnuts and one or two sour apples all minced fine. Then stir in the salad dressing.

Baked Tapioca Pudding.—A cup of tapioca, six eggs, one cup sugar, two quarts milk, one half teaspoon salt, two teaspoons vanilla. Let the tapioca soak in part of the milk for three hours. Beat the eggs and sugar together until light, add them and the salt to the soaked tapioca and milk and bake in a steady moderate oven for an hour and a quarter.

Baked Rice Pudding.—One cup rice, one cup sugar, one cup seeded raisins, a teaspoon of butter, a teaspoon of salt and two quarts of milk. Bake from one and a half to two hours in a steady oven.

Suet Pudding.—One cup finely minced suet, four cups flour, one pound raisins, one cup molasses, one teaspoon baking powder, one small cup milk, salt and cinnamon to flavor. Boil in a floured cloth for three hours and serve with sauce.

Carrot Pudding.—One and a half cups flour, one cup sugar, one cup suet chopped fine, one cup grated raw potatoes, one cup grated raw carrots, one teaspoon soda dissolved in a little water, one cup each of raisins and currants. Steam steadily for three hours.

Gingerbread.—One cup brown sugar, one scant cup shortening (half butter, half dripping) one cup molasses, one cup boiling water, two and a half cups flour, two teaspoons baking soda, two eggs, three teaspoons ground ginger, two teaspoons ground cinnamon. Cream butter and sugar; add eggs and beat again. Then add flour, with spice in it, and the molasses alternately and last of all the boiling water with the soda dissolved in it. Bake in a large pan in a moderate oven and cut in squares to serve.

Johnny Cake.—Two eggs, one and a half cups sweet milk, one and a half cups white flour, one cup corn meal, four tablespoons butter, four teaspoons baking powder, half cup of sugar, half teaspoon salt. Bake twenty minute. in a hot oven in a flat baking-pan Cut in squares to serve.

TAKE SHORT VIEWS.

Dear Dame Durden:—I am sorry not to be able to send Ebba the recipe for Piklets, for the reason that I am not sure how they are made, although I have eaten and enjoyed them countless times. However, I have written home for the recipe and shall doubtless have it before very long, when I shall be very pleased to contribute it to these columns. How Ebba must have enjoyed her summer in North Wales; it is such a picturesque country. I am from South Wales, which is not nearly so beautiful, but still we have some lovely bits too, notably the Vale of Towy in Carmarthenshire and the Vale of Glamorgan. The part we came from was

entirely given up to coal mining. I knew nothing of a country life until we came here—had never seen a plow even, and when I did see one thought it could be propelled by the man behind!

Keep up your heart, Grannie; if you won so much love at home it will not be long before you are as rich here, for yourself cannot have changed. What compelled love there will do the same here. I sympathize with all newcomers, but perhaps Ebba has my warmest wishes for has she not been to my native land and therefore is that much nearer my heart? If she would like to correspond with rather an old girl I should be very pleased to write occasionally, if my letters would in any way help to make her feel less lonely.

That poem contributed by Yorkshire girl is beautiful, there are many "days dark and dreary," but the sun is then behind the clouds. It is hard not to feel sad and lonely when one is far from home and friends but the remedy is very much in our own hands. Here is a sentence I came across shortly after coming out here and I have often thought of it: "Take short views, hope for the best, and trust in God." That is the best way, take my word for it. Friends will soon gather about one, and troubles soon pass over.

With best wishes to all, especially the lonely ones.

MARY.

(I like the first part of that sentence you quoted immensely. If we were content to take "short views" we would be saved such heaps of unnecessary and wicked worry.—D. D.)

HAS SOMEONE DIRECTIONS FOR CROCHETED SLIPPERS.

Dear Dame Durden:—I have been a reader of your Ingle Nook for nearly two years, but have never ventured to write as I have such a poor education that I am afraid my letter will be only fit for the waste basket. I want to ask you, or the Ingle Nook members to please let me know through the Ingle Nook where I can obtain a pattern for crocheted slippers, to be crocheted and then sewed on warm insoles. I want to make a pair for myself and a pair for the baby a year old. I will send you directions for a rug that can be made from old clothing, such as old dress skirts and men's coats. Cut the cloth six or eight inches square, or any sized square desired. Then cut a star from tin or copper (I had mine cut at a hardware store). A round hole must be cut in the middle of the star. Lay your star in middle of the cloth, that is so the middle of the star will come right on the middle of the square. Take old ravelings from stockings; three different colors for each star is best, but two colors will do. Thread the yarn on a darning needle having the yarn double, and starting to sew from the center. Sew to the beginning of each point then back to center; then from center to the beginning of the next point, till you get around the center in the same manner once. Then take the next color wanted and sew around over the same space you sewed before and in the same manner, then take the next color and sew right over the same in the same manner as before till once around. That finishes the center. Now start at the point next to the center and sew across, always back and forth till you get to the point, sewing close together so that the yarn is close together over the point of star. Then take the second color and repeat over in same manner, and do the same with the third. Go on to the next point and so on till all are finished. Take the scissors and cut up the center of each point and in the circle of yarn around center, take the star pattern out and one block is finished. When blocks are all finished sew together and buttonhole stitch with yarn, or you can make an edging by using the smaller pieces. I cut the pieces the shape of the heel of a man's shoe. then button holed around them and sewed them side by side around the ring. I will send the star pattern to any one applying to me through Dame Durden. I hope I have explained this so you can all understand.

PEACHERINO.

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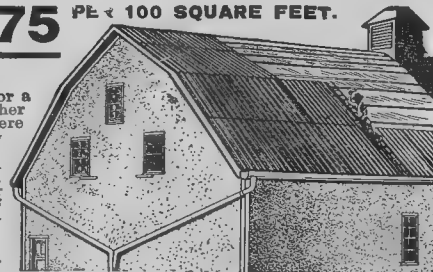
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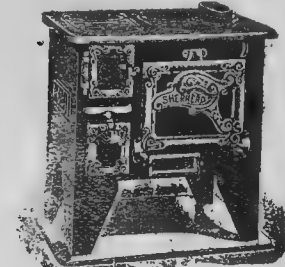
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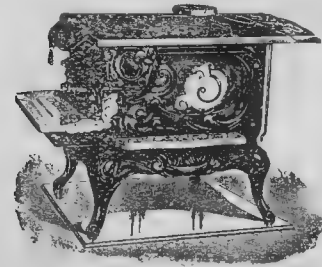
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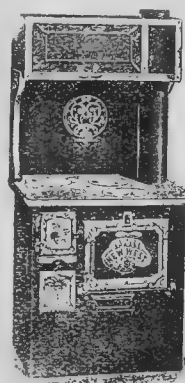


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WINNIPEG, - - MAN.

CHILDREN'S CORNER

HOW DID I KNOW?

Somebody didn't wipe the dishes dry! How did I know? Because I saw them cry. Yes, crying as they sat upon the shelves. They made no noise; each plate was in its place, But, O, two tears were on the platter's face! O, don't you think a girl so mean Whose dishes cry because they're not wiped clean? —ELIZABETH WEST, in Good House-keeping.

STITCHING.

A pocket handkerchief to hem— Oh dear, oh dear, oh dear! How many stitches it will take Before it's done, I fear!

Yet set a stitch and then a stitch, And stitch and stitch away, Till stitch by stitch the hem is done— And after work is play! —CHRISTINA G. ROSSETTI.

A SUCCESSFUL GARDEN PARTY.

Dear Cousin Dorothy:—This is the second letter I have written to you, and I hope I can write it according to your new plans.

I think I will tell you about the "Garden Party" that we had on Thursday, Aug 15th. We had a foot-ball match from two o'clock to five o'clock. It was very amusing to watch the men play. It was played between the next town and Chamberlain, and Chamberlain won the game. Then there was tea served on a long table, which we all enjoyed very much. There was a fruit and soft drink stall at the church. In the evening there was a short, but very pleasant program rendered. Chamberlain being a very small village, there is only one church, which is a Methodist church, and the garden party was held there.

I will close my letter now, Cousin Dorothy, as it is getting long. LILY ELKERTON.

P. S.—I forgot to mention that this garden party was given by the church to raise enough money to pay for a new organ, (which we have got) and it was a great success.

Sask. (a) L. E. (A very good report of the entertainment. You have begun finely to make the Children's Corner more interesting to everybody.—C. D.)

GOOD TIMES AMONG THE FRUIT.

Dear Cousin Dorothy:—This is the first letter that I have written to your corner which I think is a fine one. I am going to tell you of the trip to Gopher Creek we had, picking berries.

We were down to the creek twice. This place is about one mile from our town. The first day we went down we picked Saskatoons. They were very plentiful there; the trees were just black with them and there were a lot of trees. We picked about nineteen quarts that day. We could have picked more only there came on a big rain while we were there. We got wet right through and went home. Then we went down about a week ago, and picked saskatoons, pin cherries, and choke cherries. We had a very nice day that day as it was warm and there were lots of berries. I think that this will be too long a letter. I will say good-bye. Man. (a) JEAN ENGLISH. (12)

LAURA SECORD.

At the battle between the Canadians and Americans, fought on Queenston Heights, Ontario, in October, 1812, a militiaman named James Secord was seriously wounded; and, had it not been for the bravery of his wife, Laura, who was watching the fight from a little distance, he must have lost his life. Hearing of his wound, she went to seek him amongst the fallen and arrived just in time to save him from being put to death by two ruffians.

The Secords lived in the village of Queenston, and there they stayed even, when in the spring of 1813, the Americans captured Fort George and occupied Newark and Queenston. They were still true to their allegiance however, and, as it happened, their having remained at Queenston, enabled Laura Secord to do a great service to her country.

Posted near Beaver Dams, about thirteen miles from Queenston, was a brave Irish officer, Lieutenant Fitzgibbon, who with a little company of fifty men had done excellent service against the Americans. They therefore proposed to surprise him, in preparation for an attack on the more important post at Burlington Heights. Happily Mrs. Secord overheard two American officers discussing their plans; and, her husband being still crippled from his wound, resolved to go herself to warn Fitzgibbon. There was no time to lose, so she rose before daylight, and according to the interesting account in Miss Fitzgibbon's book, called "A Veteran of 1812," she passed the sentry by a clever little stratagem. Putting on her working dress of a flannel skirt and a cotton jacket, and wearing no shoes nor stockings, she took a pail in one hand and a stool in the other, as if she meant to milk her cow. But instead of doing so, she contrived to make it appear that the animal was running away from her. The sentry laughed at the cow's antics, and at her pretended vexation, and never guessing

One of Kootenay's
Choicest Fruit Farms

It contains 54 acres and is situated on the north side of Kootenay Lake, 5 miles east of Nelson. This farm is located in the midst of several fine improved fruit farms, has telephone line from Nelson within a few feet of the residence, is within three-quarters of a mile of the post office and is half mile distant from railroad station. Seven acres of the farm has been thoroughly cleared and are all under cultivation. Two acres slashed. Twenty-six cords of wood piled on the property for future use. The list of improvements are as follows.

Two acres in strawberries of the very finest varieties. Large quantity of small fruits such as red, and black raspberries, gooseberries, red and black currants. 200 bearing dwarf apple trees, comprising as follows: 50 Ribston Pippens 50 Famues 50 Cox Orange 50 James Greaves All these trees are true importations from England. Also 25 Duchess of Oldenberg 25 Spitzenberg 10 Yellow Transparent 12 Wolf Rivers 25 Delewarees 25 Red Astrachans 25 Ganos 100 Gravensteins 25 Tragedy Plums 12 Bradshaw Plums 5 Peaches 5 Nectarines 30 Cherries

There is a neat, comfortable cottage surrounded by a grove of trees. A cool spot in summer. Large double chicken house and runs, 2 small chicken houses and runs, a good Chinaman's house, built of solid cedar and cemented, large shed for storing merchandise, registered water right of 30 miner's inches taken from a nearby creek and water now flumed over the farm. This farm is situated about 200 yards from the shore of the lake, commands a magnificent view of the water and contains absolutely the very finest fruit soil. The products from this farm secured for its owner at the last Nelson Fruit Fair 6 first class prizes for different kinds of fruits and also took the first class prize against all comers for the best collection of vegetables. The strawberries from this farm have the best reputation of any berries shipped into Nelson. Included in this offer is a 16 foot gasoline launch in good running order, and a row boat. On account of its close proximity to the City of Nelson and the conveniences surrounding it, it is bound to rapidly increase in value and at its present price is certainly a good investment. All the different fruit trees and fruit bushes and strawberry plants are producing a good crop this season. We are positively sure that this place is one of the finest to be found along the west arm of Kootenay Lake. Price complete is \$7,300. Can arrange terms. For further particulars apply to,

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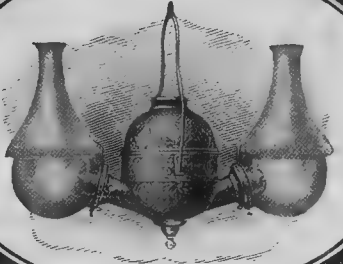
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She had heard terrible stories of their cruelty, and she was much frightened but after some time she made the chief understand by signs that the "Big Knives," as they called the Americans, were on the way to Beaver Dams, and that she wished to speak to Fitzgibbon.

Finally the chief took her to the lieutenant, who, when she told her story, realized that there was not a moment to be lost. In haste he prepared a surprise for the enemies, who meant to surprise him. In their terror of the Indians, who had harassed them on their march for miles, the Americans surrendered without striking a blow. They far outnumbered their captors, but before they discovered the fact, British re-inforcements arrived. This affair much discouraged the Americans, and gave a serious check to their designs on Upper Canada.

Laura Secord lived to be nearly ninety-three years of age, dying in 1868. She was buried at Niagara Falls, where a monument has been raised to her memory. It is right and fitting that she and all who have notably served their country, should be honoured thus, but, by her brave unselfish effort to save Fitzgibbon and his men, Laura Secord has so written her name across a stirring page of her country's history that as long as Canada lasts, it will never be forgotten

CANADIAN TEACHER.

**ANSWERS TO CONUNDRUMS IN
AUG. 21st ISSUE. (p 1313.)**

1. When Joseph served in Pharaoh's court.
2. I don't know. Alaska. (I'll ask her.)
3. When Pharaoh got a check on the Red Sea and Moses crossed it.
4. A man of deceit
Can best counterfeit (count her feet)
And so, I suppose,
Can best count her toes.
5. Because you're a deal plainer.
6. In cider. (inside her)

her real purpose let her pass. When well out of sight, she hid her pail and stool under some bushes, and pressed on in haste by round-about ways through the woods.

She dared not keep to the road lest she should be stopped or questioned, and the blazed paths were so confusing that several times she lost her way. It was a very hot day too, and before she reached the end of her weary walk, —it was nearly twenty miles by the way she had taken—she was almost tired out. At last in an opening in the forest she suddenly came upon a troop of yelling Indians.

SUNSHINE Furnace

The "SUNSHINE" is furnished with a good, big ASHPAN.

The "SUNSHINE" has a two-piece FIRE POT, either section of which can be replaced separately and which will not crack with expansion.

The "SUNSHINE" has DUPLEX or FOUR ROLLER GRATES, so that the ashes can be shaken out clean without waste.

The "SUNSHINE" has a double FEED DOOR and will admit large sticks of wood or blocks of soft coal.

The "SUNSHINE" has an automatic GAS DAMPER and special DUST FLUE and DAMPER.

The "SUNSHINE" has a convenient WATER PAN.

The "SUNSHINE" is made in a special pattern with CAST DOME and RADIATOR for SOFT COAL DISTRICTS.

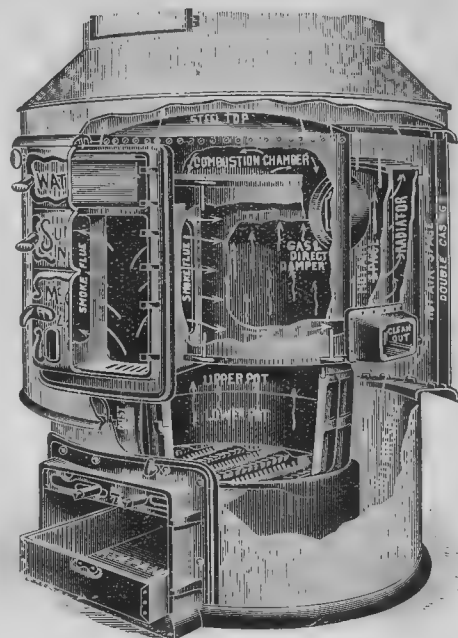
The "MAGNET" is made for WOOD ONLY.

McCLARY'S are the simplest, easiest-managed, cleanest kind of furnaces. You don't have to wear overalls and a smock when attending to the Sunshine or Magnet.

If your local dealer does not handle the "Sunshine" or "Magnet," write direct to us for FREE BOOKLET.

McClary's

183, 185 & 187 Bannatyne Ave. E., WINNIPEG
London Toronto Montreal Vancouver St. John, N.B.
Calgary Hamilton



ARE YOU THINKING OF MOVING TO SASKATCHEWAN?

Many farmers are considering selling out and taking up land in new districts. They are doing this for various reasons. Some are satisfied to take their profit—land that they homesteaded, or bought cheap, they can sell at \$40 or \$50 per acre. Others live in districts that for the last few years have not had enough moisture. They meant to move into a section that has ample rainfall. Others have suffered from early frosts—they are looking for a district where wheat damaged by frost is unknown. Others have got to find farms for growing sons.

Nearly everybody has heard of the many natural advantages of the

LAST MOUNTAIN VALLEY DISTRICT

It has been well advertised for years, but the advertisements have not been nearly so good as the land itself. Ask any man who owns a farm there whether he would trade even for any other farm in Western Canada, enjoying similar transportation and other privileges.

Ample rainfall, a warm, quick ripening, chocolate loam soil on clay sub-soil, frost unknown in 18 years, the best of railway facilities, splendid markets, schools and municipal improvements—these are some of the advantages the Last Mountain District offers.

We sell this land at from \$12.00 to \$20.00 per acre. Terms are so arranged that under cultivation the land will pay for itself. Call and let us talk to you about it. Every facility given to inspect the land.

Wm. Pearson Co. Ltd.

304 NORTHERN BANK BUILDING

WINNIPEG, MAN.

Made in many sizes and prices—but of only one quality—the best.

Martin-Orme Pianos

are having a tremendous sale all over Canada, and we'd like you to know more about them.

Write to-day for a free descriptive booklet telling why Martin-Orme Pianos are superior.

A Martin-Orme will be shipped direct to you if there's no dealer in your vicinity.

Prices and terms sent on request to any address.

ORME & SON, Limited
OTTAWA, ONT.

Agents:

Messrs. A. E. SOULIS & CO.,
Winnipeg - Man.

PREVENT BLACKLEG BLACKLEG VACCINE FREE

To introduce, we will send one 10-dose package (value \$1.00) of

CUTTER'S BLACKLEG PILLS

"CALIFORNIA STOCKMEN'S FAVORITE"

and our booklet on Blackleg and Anthrax FREE to each stockman who sends the names and addresses of 20 cattle-raisers. If you do not want Vaccine, send us your name and address on a post card and we will promptly send the booklet. It is up-to-date, valuable and interesting. Mention this paper. Address

THE CUTTER LABORATORY
BERKELEY, CAL.

T. Mayne Daly, K.C.
W. Madeley Crichton

Roland W. McClure
E. A. Cohen

Daly, Crichton & McClure
Barristers & Solicitors
Office—Canada Life Building,
WINNIPEG, Man.

BUTTER WRAPPERS

YOUR BUTTER will bring you a higher price and will also find a ready buyer if properly done up in nicely printed wrappers. We quote the above at the following prices:

8½ x 11 or 9 x 12	1000 add. 1000
Single Brand 1	\$2.75 \$1.00

FARMER'S ADVOCATE

14-16 Princess St.

WINNIPEG, - - MANITOBA

A man living in the country far from any physician was taken suddenly ill. His family, in great alarm, not knowing what to do, sent for a neighbor, who had a reputation for doctoring cows. "Can't you give father something to help him?" asked one of the sons.

"Wa-al, I don't know nothin about doctorin' people."

"You know more than we do, for you can doctor cows. Now what do you give them when they are sick?"

"Wa-al I allers give Epsom salts. You might try it on him."

"How much shall we give him?" inquired the son.

"Wa-al I give cows just a pound. Your father is a quarter as big as a cow—give him a quarter of a pound."

Questions and Answers

LEGAL MEASUREMENTS OF HAY.

In regard to hay measurements, is there any legal dimension for a ton or can a person adopt a rule to suit the particular case. Does the same rule always apply?

Alta.

R. S.

Ans.—No, there is no legal measurement. A ton is only a ton legally by weight, but parties can generally agree to take certain measurements for a ton ranging between 400 and 500 cubic feet. Well-cured timothy, that has stood for some time will run about 420 cubic feet but other grasses, especially if well-cured before being cut will often run 500 cubic feet to the ton. What holds good in one case does not necessarily apply in another.

COLORED MILK.

I have a cow which came in about two months ago. Appears healthy, eats well and gives a good flow of milk, but when milk sets for twelve hours blood settles in the bottom of the dish. Will you kindly inform me what causes it and what to give her to make milk free from this trouble?

Sask.

J. M.

Ans.—The cause of the red coloring matter in your cows milk is either from the nature of the food she eats or some disease of the udder. Would advise a change of feed and give the cow a dose of physic. Give sulphate of magnesia, 1 pound; ginger, 1 ounce; dissolved in four or five bottles of water and drench, wash with salt and water.

PONY OUT OF CONDITION.

I have a pony that is in a very bad condition. She swelled up in her legs last winter. She is not lame but very stiff. Every leg is badly swollen.

She has had plenty of salt petre, and been out on grass this summer to no effect. She looks well in every way but the swelling in her legs. What treatment would you advise?

Alta.

S. J. S.

Ans.—Give your pony the following powder: hypo sulphate of soda, 8 ounces sulphate of iron, 4 ounces; powdered gentiana, 4 ounces; powdered nux; vomica, 2 ounces; a tablespoonful once per day in soft food.

SETTLING IN NEW ONTARIO.

Farmer's son would like to go to New Ontario and take up a homestead, close to other farm if possible. What part would it be best to go to, and how could I secure the same? What would it cost me and my wife and little girl to go there, and how much money do you think I should require to get just the necessary implements to start with? An answer through your most useful paper, the FARMER'S ADVOCATE, will oblige

A. B. C.

The most desirable settlement in New Ontario would depend somewhat on the present location and circumstances of the party desiring to become a pioneer settler. In their case I would say that the District of Temiskaming probably offers as great advantages as any, as it is easily reached from his

present location. The soil there is very fertile, an although heavily timber covered, is easily cleared, and the timber, largely spruce, is readily salable for pulp wood at good prices. This enables the settler to clear his land sometimes at a profit. If he desires to visit the district for the purpose of taking up land, he should write the Bureau of Colonization, Parliament Buildings, Toronto, for a certificate that will entitle him to a reduced rate of 1½ cents per mile one way, or 2 1-2 cents per mile for return ticket, good for 40 days. There are two Crown Lands agencies in the district—one at New Liskeard, and one at Englehart, thirty miles farther north. The land in the former agency is now nearly all sold. On reaching Englehart he should apply to the local Crown Lands agent, who will supply him with a land guide to assist him in finding a suitable location. He would then require to make application by affidavits, stating his intention of becoming an actual settler, and have the affidavits of two people—the land guide and one other—to the effect that the land is unoccupied and unimproved. On payment of a cash deposit, usually half the purchase price, namely, \$40.00, he would be allotted a 160-acre location, the price of which is fifty cents per acre, payable in instalments. He would then require to go into actual occupation of his lot within six months after the date of location, and reside upon the land at least six months in each year for four years in a habitable house not less than 16x20 feet in size. When he has been in occupation thus for four years, and has sixteen acres of land cleared and under cultivation, and upon payment of the full purchase money \$80.00—he would be entitled to a patent or deed from the Crown.

After the settler has been six months in residence, and has two acres cleared and under cultivation, and the necessary house erected, he would be allowed to cut and sell all timber, other than pine, from any part of his lot free of dues. In the case of pine timber he does not become the owner of this until he has received the patent from the Crown, although he is permitted to cut and use such quantity as he requires for his own use for building, fencing or fuel, and he is only permitted to sell any pine timber cut in the actual course of clearing, subject to Crown dues of \$1.25 per thousand feet, board measure.

Maps of this and other districts, and particulars regarding them, can be obtained by addressing an inquiry to the Bureau of Colonization, Parliament Buildings, Toronto.

THOS. SOUTHWORTH,
Director of Colonization, Ont.

MAKING FOUNDATIONS.

Kindly give proportion of sand and lime used in foundation for stable. How much lime would be needed to construct a foundation twelve inches high by 24x30 feet; also how to lay out the foundation so as to have it square?

Man.

J. B.

Ans.—You do not say what material your foundation walls are to be constructed of, whether brick, stone or concrete. Neither do you give thickness of the proposed walls. We assume you intend using stone and will make the wall about one foot thick. In that case you will require about one barrel of lime. The proportions of sand and lime generally arrived at in building is one of good fresh slaked quicklime to seven of medium sand. We would add a little cement to this.

To square up the foundations, measure off from the corners six feet one way and eight feet the other in each direction along the line of the proposed wall. The corner is square when the distance between these two points is exactly ten feet. Be accurate in your measurements, use a good line and mark points with pins in the line.

SALE NOTES.

I made a sale early in June, before doing so I went to the bank to see about sale notes and the Manager promised to give me about 75 per cent. of their value on my own note holding sale note as collateral.

Before the sale I came from Alberta to Saskatchewan. When the sale notes were signed I returned them with the request that they should give me all they could as I had some debts to pay. They replied that they would advance me the money I owed them and stated the amount which was all right. They sent a blank for me to sign which I did, thinking that they would fill it out for amount of my indebtedness to them as they stated it. But previous to their statement to me there had been considerable deposited in my favor in cash. When I received my pass book I find that they had only filled out the note for amount of my indebtedness less the amount deposited. Can I compel them to advance the amount agreed upon.

Sask.

AUCTION.

Ans.—You cannot compel specific performance of the agreement to advance money. We think, however, that you might have an action for damages for breach of the contract, but it will be necessary to show that the damages claimed were the natural result and such as might be expected to arise from the breach.

GOSSIP

The vacancies of the Board of Directors of the Mutual Life of Canada, caused by death and resignations, having been filled, the Board as now constituted comprise the following members: Robert Melvin, President, Guelph; E. P. Clement, K. C., 1st Vice-President, Berlin; F. C. Bruce, 2nd Vice-President, Hamilton; Rt. Hon. Sir Wilfrid Laurier, Premier of Canada, Ottawa; J. Kerr Fiskson, Toronto; W. J. Kidd, B. A., Ottawa; William Snider, Waterloo; Walter D. Beardmore, Toronto; Sir H. Montagu Allan, Montreal; L. J. Breithaupt, Berlin; Hume Granyn, London, directors; Geo. Weganast, Managing Director, Waterloo Ont.

AMUSEMENTS AT AGRICULTURAL SHOWS.

Speaking generally of agricultural shows there seems to be little trouble in getting the competitive classes filled, but the difficulty societies are faced with is that of providing means of amusement for the people who attend the gatherings.

Of course, if agricultural societies could depend on farmers alone for the all-important gate there would not be the same difficulty, as they would probably find enough to interest them in the exhibit, but it is not so with the man in the street, who, not being particularly concerned with animals and implements, wants something to amuse him.

Happily, the love of horseflesh is firmly implanted in the breast of the average Briton, no matter what his calling may be, and though there is no longer any novelty about them, horse jumping and driving competitions lose none of their power of attraction.

Good music is another thing that never fails to draw, and a first-class band goes a long way with the show-going public.

On the other hand, this is a novelty-loving age, and considering the multitude of agricultural shows now held, the problem is to provide fresh items to attract the million.—Mark Lane Express Agr. Journal.

DOES IT PAY TO GRIND GRAIN?

This is a constantly asked question among farmers, and largely so because of no close, accurate experiment to determine the truth of the matter. Bulletin 242 of the Michigan Experiment Station throws some light on the question. From their experiments they show that cows failed to crush and digest 22.75 per cent. of the whole corn. The loss with heifers was 10.77 per cent.; with calves 6.28 per cent. When fed whole oats the loss with cows was 12.06 per cent.; heifers, 4.48 per cent.; calves, 2.98 per cent. Chemical analyses proved that there was no benefit derived from grain which passed through the animals whole.

DENATURATED ALCOHOL.

THE FARMERS' INTEREST IN IT AS VIEWED FROM A PRACTICAL STANDPOINT.

Denatured alcohol is simply the commercial grade of pure alcohol made unfit for use as a beverage by having added to it wood alcohol, which is poisonous. This denaturing process must be under the direct inspection and control of the United States government.

It is not unlikely that the individual farmer will operate and own his still. This would interfere too much with the regular farm work. The expense of inspecting these stills and denaturing this alcohol in small quantities would be enormous. There is no reason, however, why co-operative or county distilleries should not be set up in which the farmers would own stock, furnish the raw material and use the finished product on their farms or sell the surplus. In this manner, tax-free alcohol must necessarily be a benefit to the farmer.

The cost of denaturing alcohol will be that of labor and the cost of the denaturing agents, and should not exceed five cents per gallon.

The chief alcohol-yielding materials produced in farm crops are starch and sugar. Used for this purpose they yield about 45 per cent. of their weight in alcohol. This gives us a basis for estimating the amount of alcohol which different crops may yield. Thus the percentage of alcohol-making material

duction of alcohol. However, there are always, in connection with the farm, some products which could be readily converted into alcohol which would otherwise be totally lost. This alcohol would, in the majority of cases, furnish the heat, light and power necessary for that farm, and would at the same time tend to keep down the price of gasoline and kerosene.

For lighting purposes alcohol has been found to possess almost twice the efficiency of kerosene. It furnishes a brighter, cleaner and whiter light, without the disagreeable odor, and is safer than kerosene.

For power purposes, according to Lucke, "an engine designed for gasoline or kerosene can, without any material alterations to adapt it to alcohol, give slightly more power (about 10 per cent.) than when operated with gasoline or kerosene, but the increase is at the expense of greater consumption of fuel. By alterations, designed to adapt the engine to this new fuel, this excess of power may be increased to about 20 per cent."

"The different designs of gasoline engines are not equally well adapted to the burning of alcohol, though all may burn it with a fair degree of success."

In most localities it is unlikely that alcohol power will be cheaper or as cheap as gasoline power, for some time to come.

Too much must not be expected of the alcohol industry at once; its

10 Cents made this SKIRT Bright, Fresh, and as Good as NEW



"Seven years ago I commenced to use your DIAMOND DYES, and up to the present they have saved me hundreds of dollars. When I have a faded Skirt, I find that a 10 cent package of DIAMOND DYES, will make it look as fresh and as good as new. I have always had perfect success in re-coloring suits for my husband and the children."

Mrs. K. Waterhouse, Toronto, Ont.

DON'T BE DECEIVED, or led to believe by either unscrupulous merchants or misleading advertisements that Wool and Silk (animal materials); Cotton and Linen (vegetable materials); and Mixed Goods (in which vegetable material generally predominates) can be dyed equally well with the same dye.

Of course, it sounds easy to trust to chance and use one dye for all materials; but, for success, if you are dyeing Cotton, Linen or Mixed Goods, ask for DIAMOND DYES for COTTON. If you are dyeing Wool or Silk, ask for DIAMOND DYES for WOOL.

FREE SAMPLES OF DYED CLOTH.

Send us your name and address (be sure to mention your merchant's name and tell us whether he sells DIAMOND DYES), and we will send you a copy of our new Direction Book and 50 samples of dyed cloth.

Address:
WELLS & RICHARDSON CO., LIMITED
MONTREAL, P.Q.



LADIES

Send for a FREE Sample of ORANGE LILY

If you suffer from any disease of the organs that make of you a woman, write me at once for ten days treatment of ORANGE LILY, which I will send to every lady enclosing 3 cent stamps. This wonderful Applied remedy cures tumors, leucorrhoea, lacerations, painful periods, pains in the back, sides and abdomen, falling, irregularities, etc. like

You can use it and cure yourself in the privacy of your own home for a trifle, no physician being necessary. Don't fail to write to-day for the FREE TRIAL TREATMENT. This will convince you that you will get well if you continue the treatment a reasonable time. Address
MRS. F. V. CURRAH, Windsor, Ont.

A Grand Cure

FOR
SUMMER COMPLAINT
AND CRAMPS

IS
DR. FOWLER'S
EXTRACT OF

WILD STRAWBERRY

It is nature's specific for Diarrhoea, Dysentery, Cramps, Colic, Pain in the Stomach, Cholera Morbus, Cholera Infantum, Sea Sickness, Summer Complaint, etc.

Rapid and reliable in its action.

Its effects are marvellous, and it is pleasant and harmless to take.

It has been a household remedy for sixty-two years.

Refuse substitutes. They are dangerous.

Mrs. Wm. Flewelling, Arthur, Ont., writes: "I find it much pleasure to recommend Dr. FOWLER'S EXTRACT OF WILD STRAWBERRY as a grand cure for Summer Complaint. My little boy, one year old, was very bad with it, and a few doses cured him. I also used it on my other six children for cramps and still have half the bottle left. I cannot praise it too much."



BUILDING THE C.P.R. EAST FROM WETASKIWIN, ALTA.

in different farm products, of which about 45 per cent. can be converted into alcohol, is about as follows:

	Per Cent.
Rice	80
Rye	72
Wheat	71
Barley	70
Corn	70
Kaffir corn	70
Buckwheat	64
Oats	60
Cowpeas	55
Peas	50
Potatoes	17
Apples	16
Sugar beets	15
Corn stalks (green)	12

For example, suppose a farmer raise but 100 bushels of potatoes on an acre; these will weigh 6,000 pounds. According to the above table, 17 per cent. of this, or 1,200 pounds, is starch. This starch will yield about 45 per cent. of its weight in alcohol, or 459 pounds, which equals sixty-seven gallons. Thus the alcohol produced from one acre of potatoes of 100 bushels yield, selling for twenty-five cents per gallon, would amount to the sum of \$16.75.

Calculations made from any of the other farm crops as to the amount of alcohol which may be produced will look rather small from the farmer's standpoint.

Under these conditions it would hardly be a paying proposition to raise the average crop for the pro-

gress is bound to be slow. There are many problems to solve which will take considerable time.—H. M. BAINER, Professor of Farm Mechanics, Colorado Agricultural College.

TREATMENT FOR BARRENNESS.

Every farmer is troubled more or less with barren females and any remedy should be welcomed. There is a remedy so simple that many will, no doubt, refuse to give it a trial. What is known as the yeast treatment for barrenness is simply this: Take one ordinary yeast cake, such as is used in bread making and wet it a little with warm water that has been freshly boiled and stir one pint of it into the yeast paste and let stand from eight to twelve hours longer. It is then ready for use. Inject all of it into the vagina of the animal that has been barren, just as she is coming in heat and breed her just as she is going out of heat.

Will this do it? Here is the testimony of a farmer in Simcoe County, Ontario: "I will give you my experience with the yeast treatment. I had a mare sixteen years old that never foaled. Had bred her to all kinds of horses for the past five years without success. I decided to give yeast treatment a trial, with the result that she held at first service and produced a good strong colt." Others testify of success.

It is necessary, of course, that the yeast be freshly mixed and used when ready. The time can be calculated by watching in advance.



Highland Park College Des Moines, Iowa.

Terms Open Sept. 3, Oct. 14, Nov. 26, 1907, and Jan. 6, 1908.

THE FOLLOWING REGULAR COURSES MAINTAINED

1 Classical	11 Pharmacy
2 Scientific	12 Music
3 Normal	13 Oratory
4 Primary Training	14 Business
5 Civil Engineering	15 Shorthand
6 Electrical Engineering	16 Telegraphy
7 Steam Engineering	17 Pen Art and Drawing
8 Mechanical Engineering	18 Railway Mail Service
9 Machinists' Course	19 Summer School
10 Telephone Engineering	20 Home Study

Instructions given in all branches by correspondence. Board \$1.50, \$2.00 and \$2.50 per week. Tuition in College Normal, and Commercial Courses, \$15.00 a quarter. All expenses three months \$48.40; six months \$94.11, nine months \$132.40. School all year. Enter anytime. 2000 students annually. Catalog free. Mention course you are interested in and state whether you wish resident or correspondence work. Highland Park College, Des Moines, Iowa.

The Settlers' Association of B. C.

NEW WESTMINSTER, BRITISH COLUMBIA

Have for sale choice locations in various sections of the Province. Improved and unimproved lands particularly adapted for Fruit, Poultry, Sheep, Stock and Dairy or General Farming.

We have been engaged in the fruit growing and general farming business here for many years and are still operating our own farms, hence are in a position, as practical farmers, to afford intending Settlers information of a character that may mean a great deal to YOU, all of which is freely at your disposal.

A post-card will bring to you our land list, maps, etc.

The Settlers' Association of B.C.

Box 556, NEW WESTMINSTER, B.C.

WANTS & FOR SALE

Advertisement will be inserted under this heading such as Farm Property, Help and Situations Wanted, and miscellaneous advertising.

TERMS—Two cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FOR SALE—Scotch Collie Pups, \$10 apiece, f.o.b., now ready, apply early to J. K. Hux, Rodney, Ont.

FOR SALE—Two first-class Angus Bulls, registered in American Herd Book. Also one car lot of cattle, mostly coming 2 yrs. old. These cattle are Angus grades and will be sold right. For particulars apply to P. Hay, Lintharthen P. O. Manitoba. 4-9

FOR SALE—Italian Rees, L. J. Crowder, Portage La Prairie, Man. 18-12

WANTED—Three hundred ewe lambs or two-year-old ewes. Apply, stating price, Alex. Castel, Lloydminster, Sask. 4-9

FARM FOR SALE—All of 16-19-24, north half of 9-19-24; all fenced, 300 acres broken, good house, stables and granary. Good well and creek on the place. Terms easy. For particulars apply to A. Cumming, Rosburn P.O., Man. 20-11

FOR SALE—British Columbia. Ranches, farms and fruit lands adjoining city of Kamloops; blocks of 10 acres up; river frontage; produces peaches, apricots, plums, grapes, melons, tomatoes which never fail to ripen; unlimited markets; terms easy. Apply Strutt & Nash, Kamloops, B.C. 21-8

FOR SALE—Twenty-three yearling steers and heifers. High-grade shorthorn, large sized and in good condition. David Jackson, Newdale, Man. 18-9

SITUATION wanted as Engineer for traction during harvesting. Three years experience. Address Box A, Farmer's Advocate. 18-9

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

POULTRY and EGGS

Rates—Two cents per word each insertion. Cash with order. No advertisement taken under fifty cents.

H. E. WABY, Holmfield, Man., will sell to make room, choice Barred Rock and S. C. Brown Leghorn Cockerels at \$1.00 to \$3.00. Buy now and save express on fullgrown birds. T.F.

AT MAW'S Poultry Farm, Parkdale Post Office near Winnipeg. Acclimatized utility breeds, turkeys, geese, ducks, chickens, incubators and poultry supplies. Large catalog mailed free. 5-2

W. F. SCARTH & SON'S S. C. Buff Orpingtons. Eggs from carefully selected hens mated with first prize cock, Manitoba Poultry Show, 1907. \$2.00 per 13. Box 706, Virden T.F.

BARRED ROCK Eggs from carefully selected pens of choicest matings. Leading strains of America. Selected for their choice barring and heavy laying of large brown eggs, and headed by cockerels, vigorous, blocky, and beautifully barred. I expect grand results from my Barred Rocks this season. Testimonials report excellent hatches. Eggs carefully selected from choicest matings reduced to \$1 per setting or \$1.50 per two settings. Good hatch guaranteed. Orders filled promptly. Honest dealings. G. Norman Shields, 29 Close Ave., Toronto, Ont. 22-9

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

C. W. ROBBINS, Chilliwack, B. C., breeder of laying strain Buff Orpingtons. 18-9

CHOICE SINGLE COMB Snow-white Leghorn eggs from carefully selected pens of choicest matings. Bred for heavy layers and typical beauty. Testimonials report excellent hatches. Selected eggs reduced to \$1.50 per setting. Good hatch guaranteed. Orders filled promptly. Honest dealings. G. Norman Shields, 29 Close Ave., Toronto, Ont. 22-9

FOR SALE—Barred Rocks, Leghorns, Geese, Turkeys Indian Runner Ducks, Rabbits, Pigeons; also improved Ranch. Geo. D. J. Perceval, Priddis, Alberta. 18-9

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

Lost, Strayed or Impounded

This department is for the benefit of paid-up subscribers to the FARMER'S ADVOCATE, each of whom is entitled to one free insertion of a notice not exceeding five lines. Notices exceeding five lines will be charged two cents per word for each additional word, payable in advance.

STRAYED—from five miles North of Ponoka, Iron Grey Horse, branded H on left shoulder; Black mare, indistinct brand; Dapple Grey mare. All unbroken and heavy weight. \$25 reward. F. D. Warren, Ponoka, Alberta. T. F.

STRAYED—One dark sorrel mare branded X over I on right hip; one sorrel mare with white points, branded X over I on right hip. Roberts Bros., Kneeshill Valley P.O., Alberta. 4-9

STRAYED five weeks ago, bay mare, 12-years old, short tail. Good reward assured. J. A. Chmelitsky, 74 Derby St., Winnipeg, Man. 11-9

\$10.00 Reward, for information leading to recovery of one grey gelding, aged 12, and one bay mare, branded CY on thigh. Geo. Williams, Brookdale, Man. 11-9

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

Breeders' Directory

Breeder's name, post-office address, class of stock kept, will be inserted under this heading at \$4.00 per line per year. Terms cash strictly in advance. No card to be less than two lines or more than three lines.

POPLAR GROVE HEREFORDS, A number of young cows, heifers, and bulls now for sale from this famous herd at low prices. J. E. Marples, Deleau, Man. Buff Orpington Eggs. T.F.

A. & J. MORRISON, Glen Ross Farm, Homewood, Man., Clydesdales and Shorthorns. 13-11

JAMES WILSON, Grand View Stock Farm, Innisfail, Alta.,—Breeder of Shorthorns. 13-6

A. J. MACKAY, Wa-Wa-Dell Farm, Macdonald, Man., breeder of Shorthorn Cattle and Leicester sheep. 7-8

MERRYFIELD FARM, Fairview, Thos. Brooks, breeder of Clydesdales and Shorthorns. Box 134, Pense, Sask. 30-10

CLYDESDALES, Shorthorns and Tamworths, T. E. M. Banting & Sons, Banting P. O. Man. Phone 85, Wanawana. Exchange. 30-1

STRONSA STOCK FARM—Well-bred and carefully selected Shorthorns and Berkshires David Allison, Roland, Man. 13-11

SHETLAND PONIES and Hereford Cattle, finest in Canada. Write or come and see them. J. E. Marples, Poplar Grove Farm, Deleau, Man. T.F.

IF YOU ARE in need of anything, search the advertising columns. You will find it in the FARMER'S ADVOCATE.

JOHN GARDHOUSE & SONS, Highfield P. O. Ont.—Breeders of Scotch and Scotch-topped Shorthorns, Lincoln and Leicester sheep and Shire horses. T.F.

R. A. & J. A. WATT, Salem, Elora Station, G.T. and C. N. R. R.—Champion herd of Toronto and New York State Fairs, 1905, also Grand Champion females, including both Senior and Junior Honors at both fairs. Write your wants. 31-12

BROWNE BROS., Ellisboro, Assa.—Breeders of Polled Angus cattle and Berkshire swine. Stock of both for sale. 13-3

BERKSHIRES,—Gold Medal Herd, Neepawa, Manitoba. Address, J. A. McGill. 24-4

WOODMERE FARM,—Clydesdales, Shorthorns and Yorkshires. Pigs at 8 weeks, f. o. b. Neepawa, \$8 apiece. S. Benson. 24-4

GEORGE LITTLE, Neepawa, Man.—Shorthorns of best Scotch type. 24-4

CLYDESDALES,—a choice collection of breeding stock always available. Jas. Burnett, Napinka, Man. 30-1

ASHCROFT, W. H. NESBITT, Roland, Man. Clyde and Hackney mares and Stallions, work horses in car-lots, Ayrshires. Our motto, Live and let Live. 6-2

WHEN REPLYING to advertisements on this page mention the FARMER'S ADVOCATE.

Trade Notes.

ON ANOTHER PAGE in this issue will be found the advertisement of the Anchor Investment Co. This concern has extensive interests in the Province of British Columbia. They are interested in the development of Graham City on the Northern shore of Queen Charlotte Island, 80 miles from Prince Rupert, and in direct line of the warm Japanese currents. This gives to the district a climate that is unexcelled. The coldest on record showed only 20 degrees of frost and this came last winter when in the same latitude other countries were suffering from fuel famines, delayed railroads and dislocated business owing to cold weather.

As an instance of the splendid growth of fruit trees in this locality, we may mention the fact that one plum tree last year produced \$25.00 worth of plums. The land needs no irrigation and the rapid development of the adjacent country affords an excellent market.

We invite the attention of our friends to this district and if interested further particulars may be secured by mentioning this paper and writing the Anchor Investment Co. Ltd., 206, 208 Somerset Block, Winnipeg, Man.

THE GAME SEASON does not mean much to the man who has no gun, or whose gun does not carry straight. Half the fun in hunting is in raising the quarry, and all the disappointment in missing a shot. Read the advertisement of the Hingston-Smith Co., in this issue, and get all the pleasure out of a shooting trip that such an event contains.

THE ONTARIO WIND Engine and Pump Co. Ltd., Winnipeg, are sending a large number of Kelly & Taneyhill Co's. "Monarch" Drilling Machines into Saskatchewan.

This, we presume, is largely caused by the stimulation given by the Sask. Government paying one-half the cost of well-drilling machinery imported into that province, for the purpose of sinking wells for settlers.

MESSRS. McTAGGART-WRIGHT who advertised binder twine in our Aug. 21st number at 6½ cents per pound ask us to notify the public that the quotation was an inadvertent error upon their part and should have been 11½ cents.

We are sorry that this error occurred as it has caused Messrs. McTaggart-Wright and the large number of readers who answered the "ad." some inconvenience in corresponding.

THE SEPARATOR NEWS for Autumn, will be ready for distribution September 15th.

About farm separating, and especially about the Tubular separator, illustrated in colors; offers catalogues, "Business Dairying," matchholders, mirrors, pictures.

The News also tells about the piano competition open to buyers of Tubulars during 1907.

The Separator News is free to those asking for it. Three illuminated postcards will be sent to those who send the names of two other persons, interested in dairying, who do not own Tubular separators.

THE SHARPLES SEPARATOR CO., West Chester, Pa.



It dries them up

COMMON SENSE EXTERMINATOR

Kills Roaches, Bed-bugs, Rats and Mice

All Dealers and 377 Queen St. W.,

Toronto, Ontario.

Write for Testimonials.

HEATERS

All Kinds and Sizes at less than Half the Price others ask.

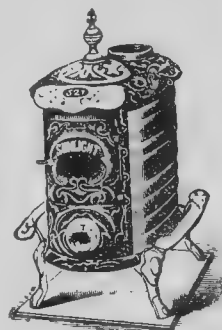
\$1.75



The Sunlight is an Extra Heavy Blue Polished Steel Air-tight with heavy cast top and bottom.

This stove is made to last and give splendid service. It is handsome in appearance and elaborately nickeled trimmed. Made in two sizes only: No. 20, 18, 14 x 20 inches, \$7.25 No. 27 size 25 x 16 x 22 inches price \$9.25. Our catalog gives details, write for it please.

buys the Toba Sheet Steel Air-tight, a heavy planished steel heater with double seamed top and bottom; corrugated steel lining; burns wood cobs and rubbish of all kinds. Size 18 x14x15 inches. Others ask \$3.50 for a heater not as good. We have other sizes at just as low prices, write for catalog.



\$4.75



For \$5.00 we offer you the Wingold Oak No. 11

It as the Best and Most Economical Oak Heater made. Pay double our price elsewhere, but you will not get a better stove. The Wingold is made up in the latest style, is the neatest in design and for Durability Long Service, Economy of fuel and Strength, it has no equal. It has heavy corrugated fire pot with draw center grate; ground joints fitted air-tight; handsome Nickeled Trimmings, a splendid Heater



in every respect and we guarantee every piece and part, guarantee it to reach you in perfect condition. We have all sizes up to 21 inches Send for catalog giving all the desired information, its free.

\$9.50



buys the best hot blast heater. Our New King Hot Blast is the most beautiful, most showy most massive and richly nickeled trimmed and by far the finest and most durable hot blast heater ever offered by any one. The body is made of heavy blue polished steel with heavy cast top and bottom; good sized feed door fitted with mica so the fire can be seen without opening the door. Heavy cast corrugated sectional fire pot, which is the latest and best construction known to stove builders' art. Has draw center grate with large ash pit and pan. Burns hard coal, soft coal, coke and Souris coal. Made in 4 sizes and sold direct by us at less than half what others charge for an inferior stove. You will save considerable if you will write for our catalog before buying a heater of any kind at any price. A post card with your name and address will bring to you our catalog together with the cost of freight to your station which is a small item compared with what you will save in buying from us. Write for it to-day please.

THE WINGOLD STOVE CO., LTD.

DEPT. F. A.

245 Notre Dame Ave., Winnipeg, Man.

Gombault's Caustic Balsam

**The Worlds Greatest and Surest
Veterinary Remedy**
HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Cautery or Firing. Invaluable as a CURE for

FOUNDER,
WIND PUFFS,
THRUSH,
DIPHTHERIA,
SKIN DISEASES,
RINGBONE,
PINK EYE,
SWEENY,
BONY TUMORS,
LAMENESS FROM
SPAVIN,
QUARTER CRACKS,
SCRATCHES,
POLL EVIL,
PARASITES.

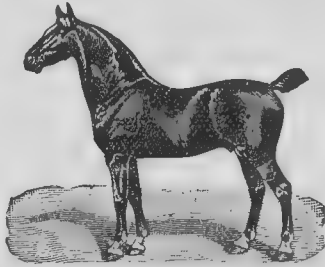
REMOVES

BUNCHES or
BLEMISHES,
SPLINTS,
CAPPED HOCK,
STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

**The Accepted Standard
VETERINARY REMEDY**
Always Reliable.
Sure in Results.



None genuine without the signature of
The Lawrence-Williams Co.
Sole Importers & Proprietors for the
U.S. & CANADA. } CLEVELAND, O.

THE BEST FOR BLISTERING.

I have used GOMBAULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success.
CHAS. MOTT, Manager,
Mayfield Stud Farm, Leesburg, Va.

CURED CURB WITH TWO APPLICATIONS.

Have used your GOMBAULT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever.—DAN SCHWER, Evergreen, Ill.

Sole Agents for the United States and Canada.
The Lawrence-Williams Co.
TORONTO, ONT. CLEVELAND, OHIO.

JOHN A. TURNER, BALGREGGAN STOCK FARM, CALGARY, P. O. Box 472. 'Phone 221A
Importer and Breeder of Clydesdales, Hackneys, Shorthorns and Shropshire Sheep.

Will import another shipment of Clydesdale Stallions and Fillies as well as a few Hackneys in October. Orders carefully filled and satisfaction guaranteed. At prices defying competition, as sales speak for themselves. 37 Stallions Sold Since Jan. 1907; also 25 females (registered). Look for Exhibit at the Fairs. Business conducted personally. Anyone wanting a show Stallion or a Filly, can have a greater choice than in any other breeding establishment in Canada. Everyone welcome. Yearly home-bred stallions on hand at present as well as a few older ones.

GOLDEN WEST STOCK FARM

Clydesdales and Shorthorns

Stallions and mares of excellent breeding, of all ages, for sale.

Also some choice young bulls fit for service and a number of cows and heifers of noted Scotch strains.

Many of them Leading Prize Winners at the big Western Fairs.

P. M. BREDT

Regina, Sask.



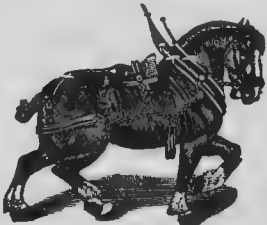
CLUB STABLES

12th STREET, (Box 485) BRANDON

MacMillan, Colquhoun & Beattie

Importers and Breeders of

Clydesdale, Percheron and Hackney Stallions



THE MOST FASHIONABLE STRAINS OF BREEDING ALWAYS ON HAND

CLYDESDALE STALLIONS and MARES

Out of a carefully bred and selected lot I am offering a five-year-old stallion, a three-year-old, a two-year-old, two yearlings, and several mares and fillies. Will sell quick before seeding. Farm (Meadow Lawn) convenient to Regina. Full details given on application. Address

J. D. TRAYNOR

Condie P. O., Sask.



"Americans pay too much attention to wealth."

"Yes," answered the rural millionaire, "especially the men who assess property."—Washington Star.

QUESTIONS AND ANSWERS

DISCHARGING HIRED MAN.

Last April I hired a man and wife for a year at \$400.00. I told the man that he had to take charge of the farm as probably I wouldn't be there most of the time in summer. Seeing that the man took it very easy the first month, I wanted him to sign a contract for only working on farm, not taking charge of it, and intended to stay on the farm as much as possible myself. He refused to sign contract. Also he refused to get up in time, to have his four horses ready for work at 7 a. m. All he has to do besides is to milk one or two cows. Once during my absence he took a team of horses to locate homesteaders, without my knowledge and left other horses without work. And I told him I didn't want him any more and was willing to pay \$40 the month, but he wouldn't go unless he would get the \$400. A short time after he invited two relatives of his to my place for two weeks without telling me anything before they were there. Naturally then I couldn't throw them out very well as they were ladies. I think I have the right to charge him for the board and tell him not to repeat the case.

A few days ago I told him to cut more hay, but he simply refused, telling me that he was running the farm and that he had enough hay for the stock on the farm, although I told him before that I had some twenty head on the surrounding farms. He wanted to move the house, which I wanted to do after the crop (only 40 acres) is cut.

I would be glad to have your advice as soon as possible, telling me how I can make him go and what you think a fair offer to pay per month, as I naturally get tired of discussing the same subject with him all the time.

Sask.

EMPLOYER.

Ans.—From the facts and circumstances as set out in your letter we judge that you have a perfect right to discharge the man and his wife. There is a provision in the laws of your province under which any person engaged or hired absenting himself by day or night without leave from his proper service or employment, or refusing or neglecting to perform his just duties, or to obey the lawful commands of his master, or of anticipating his employer's property or effects, shall be deemed to be guilty of a violation of his contract and upon summary conviction of one or more of said violations forfeit and pay such sum of money, not exceeding \$30.00, as the justice or magistrate seems meet, together with costs of prosecution. Your remedy under this act would be complaint upon oath before a justice of the peace or a magistrate. There is no question in our mind that the man had no right to take horses to locate homesteaders without your consent. This, we consider, gross negligence of duty, and he has no right, without your consent, to invite his relatives to your place and keep them there at your expense. It appears to us that you will be perfectly justified in charging him with the amount of loss occasioned to you in connection with each of these matters

VETERINARY

ADVICE FREE



Dr. S. A. Tuttle, a veterinary surgeon of long experience has written a book entitled "Veterinary Experience" on the diseases of horses, giving symptoms and treatment in plain terms. It is fully illustrated with diagrams showing the skeleton and circulatory and digestive systems with references that make them plain. Tells how to buy a horse and should have one. It is sent to any one.

TUTTLE'S ELIXIR

Is the only guaranteed cure for Colic, Curb, recent Shoe Boils and Callosities. It locates lameness, relieves and cures Spavins, Ring Bone, Cockle Joints, Grease Heel, Scratches, Catarrh, etc. Send today and get the book free and information about Dr. Tuttle's specifics.

TUTTLE'S ELIXIR CO.,
66 Beverly Street, Boston, Mass.
Canadian Branch, 32 St. Gabriel St., Montreal, Quebec.



The Underwear That is Guaranteed

You get exactly what you pay for—or you get your money back—when you buy

Stanfield's "Unshrinkable" Underwear

Every dealer, handling STANFIELD'S, is authorized to refund the purchase price, should any STANFIELD garment shrink from any cause.

Safe Underwear
for you to buy,
isn't it?

84

Star Farm Shorthorns



Herd headed by the imported Cruickshank Bull Allister, winner of championship at Prince Albert and Saskatoon. Herd also won twelve first and eleven second prizes, 1906. 3 Bulls that have won 1st and 2nd prizes Prince Albert and Saskatoon; for sale. Also Barred Plymouth Rocks.

*arm one mile from station.

R. W. Caswell,

SASKATOON, SASK.

Importer and Breeder of Scotch Shorthorns

Sheep for Sale

We are offering for sale for October delivery 500 Cross-bred Lincoln-Merino and Oxford Down-Merino Yearling Ewes at \$6.00 per head at Walsh station. Would sell in carload lots to suit purchasers. We have also for sale a number of Lincoln, Oxford-Down, and Cross-bred Oxford Down-Rambouillet Merino Rams. Prices according to quality.

The Sarnia Ranching Co. Ltd.
Walsh, Alberta

B. P. RICHARDSON

BARRISTER, SOLICITOR
NOTARY PUBLIC

Solicitor for the FARMER'S ADVOCATE for Alberta and Saskatchewan.

GRENFELL, SASK.

LANDS FOR SALE

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durably bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
46 Church Street, Toronto, Ontario

If you want feeders that will graze you must have with the best. Shetlands and White Leghorns for sale.

HEREFORD

blood in them. I can supply you with the best. JAS. BRAY, Portage la Prairie

NEEPAWA STOCK FARM
FOR SALE—Shorthorns, combining milk and beef, and prize winning Tamworths, pigs of both sexes. Write me,
A. W. Caswell, Neepawa, Man.

SHORTHORNS

Ranchers and farmers need the reds, whites and roans, if you wish to breed the best and most profitable cattle. Can supply you with tip-top stuff. Am offering one three year-old, six two-year-old and six yearling Shorthorn Bulls; also ten Cows and Heifers.

JOHN RAMSAY, Priddis, Alta.

OUR
Shorthorns & Yorkshires
Will be seen at the leading Western Fairs this year.
W. H. ENGLISH & SONS,
HARDING.

Brampton Jerseys

Select your stock bull or family cow from Canada's most famous and largest Jersey herd.

B. H. BULL & SON
Brampton, Canada.

MAPLE SHADE

JOHN DRYDEN & SON
Stations: Brooklin, G.T.R.



ISLAND PARK HEREFORDS

The Champion Herd at Winnipeg and Brandon for three years. This year won nine first prizes out of ten competed for. At Winnipeg, three championships and one grand championship. A few good young females for sale.

Address: J. A. CHAPMAN, ISLAND PARK FARM, BERESFORD, MAN.

Bellevue Herd of Yorkshires

FOR SALE at present, the champion boar (1906) "Cherry Grove Leader," winner of first prize at Winnipeg and Brandon Fairs 1907. "Prince II," champion boar at Brandon 1907. Both these boars got by the champion boar "Summer Hill Oak 17th," at Winnipeg 1905 and Brandon 1905-6. What better record do you want? Boars and sows, all ages, at reasonable prices. Order early if you want any. The best herd west of the Lakes in Yorkshire and Tamworth Swine.

OLIVER KING, WAWANESA, MAN.

SHORTHORNS and YORKSHIRES

We have ready for shipment now, a number of Bulls and Heifers of various ages and of good quality. These will be sold cheap, as we are overcrowded.

In Yorkshires we will be able to ship by the end of June a grand lot of young pigs, of either sex. Also a few good Berkshire Boars. These are mostly from imported or prizewinning stock. For particulars write to

WALTER JAMES & SONS, Rosser, Man.

WOOL

Write for our prices

E. T. CARTER & CO., TORONTO

CLENDENING BROS.
Harding, Man.

RED POLLED CATTLE

The Grain Grower's Cow

A few Bull Calves for Sale
YORKSHIRE HOGS

There is money in Hogs if you have the right kind. Our breeding insures both quality and quantity. Spring Pigs of both sexes for sale.

SPECIAL OFFERING OF

8 Good Young Bulls

FIT FOR SERVICE

Geo. Rankin & Sons, HAMOTA, Man.

Terra Nova Stock Farm
HERD OF
ABERDEEN-ANGUS CATTLE

All the best families represented. Some fine young bulls for sale from both imported and home bred cows. Prices reasonable.
S. MARTIN, Rounthwaite, Man.

Sittyton Shorthorns

* The Champion Herd at Regina and Calgary, 1906. At present all my bulls are sold but I can supply a number of first-class females of all ages and of most approved breeding. My old stock bull, Sittyton Hero 7th, has left a good mark. Get my prices for females before closing elsewhere.
GEO. KINNON, COTTONWOOD, Sask.
Lumsden or Pense stations.

SHORTHORNS SHROPSHIRE
One yearling "Lavender" bull for sale
Younger bulls growing
All shearing rams and ewes sold
Will sell a few good ram lambs
JOHN DRYDEN & SON
Stations: Brooklin, G.T.R. **Brooklin, Ont.**
Myrtle, C.P.R.

Glencorse Herd of Improved Yorkshires

Is comprised of stock from the leading Prize Winning Herds of Great Britain and Canada.
Young stock of both sexes for sale.
Prices very reasonable.

GLEN BROS., Didsbury, Alta.

The question of providing sufficient hay is one to be decided by yourself, and we think that you are perfectly justified, should he decline to put up a reasonable amount of hay, in discharging him on this ground alone.

NEW SETTLEMENT; HAY IN STACK

1. Could you or any readers of your valuable paper inform me as to the best route to take to reach a point on the Wetaskiwin branch of the C.P.R., sixty miles west of Saskatoon? I intend travelling by road from Winnipeg and should like to know the best and shortest route.

2. Also what dimensions should a stack of hay be to reach about fifteen tons weight?

Man.

J. W.

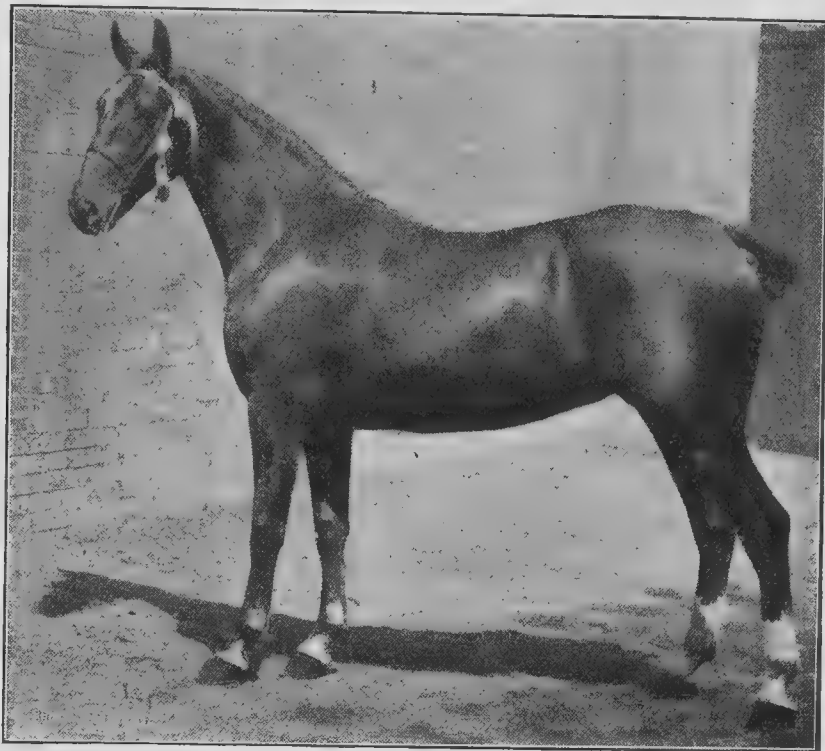
Ans.—The farmers in that part market their grain at Saskatoon and have a very good trail out to their settlement. In winter you may be able to go in on the railway from Moose Jaw and cross the river on the ice, or you may go by Hanley, there is only a few miles difference and something would depend upon the direction and distance you would locate from the railway.

2. A ton measures from 400 to 500 cubic feet, depending upon the kind of hay and the time it has stood. If we estimate 450 feet, then 15 tons would be 6,750 cubic feet. As to the dimensions there are so many different

breath; and, with some the eyes seem to turn out. The disease seems to spread through the flock. Is there any help for them?

READER.

Ans.—This swelling of the head around the eyes denotes roup. This starts, first, from a cold unless the flock have mixed with another clutch suffering from same disease, or are running over range which has previously been used by a diseased flock. Many years ago, I lost a great number through trying to cure them with drugs, and I now hold it in check so well by killing and burying afflicted specimens that I have only to chop the head off one poult the past two years. The first symptoms is a slight "puff" between the eye and nostril. This is the indication of a slight cold, and, if watched, will sometimes pass away in two days. If it does not leave in that time, I practise cutting off the head and burying, no matter how valuable the bird. In order to detect this "puff", it requires closer observation on the part of the attendant than is usually given. I have frequently noticed in neighbor's flocks ten days or two weeks before they could see anything wrong, and I suspect in this case that the most of the poult dying have been afflicted at least a month. However, the gasping for breath is not a symptom of roup in the early stage, and, if I remember correctly, not at any stage. Consequently, I would advise cutting



HACKNEY MARE, "LIVELY BEESWING,"

Champion International Horse Show, London, 1907; Foaled 1905; Bred and Owned by Sir Walter Gilbey, Bart.

shapes of stack that we could not give you an intelligent answer to suit your particular case.

BLADDER CAMPION AGAIN.

The enclosed weed is a newcomer here. It grows a strong root and a large, branching top. Its numerous pods, when ripe, are filled with small seeds. It seems like a bad weed.

D. W.

Ans.—This is the bladder campion (Silene inflata). It is recognized by its smooth, opposite leaves and whitish flowers, surrounded by an inflated veiny calyx. It becomes a troublesome weed if allowed to establish itself by its perennial roots and numerous seeds. Spud or dig the plants out the first season they are observed. If you let them get very numerous, you will have to summer-follow, or put in "hoe crop."

J. D.

YOUNG TURKEYS DYING.

Our young turkeys are dying off with some disease of the head—the half-grown ones as well as the younger ones. The trouble seems to be all in their heads. They seem to be able to swallow their food, but cannot chirp at all. Their heads swell, and they seem to gasp for

open the windpipe of a dead bird, and examine for small, reddish-colored worms. If found, this would indicate gapes, which are prevalent in many localities this season. Placing myself in "Reader's" position, I would immediately kill every poult which showed showed signs of disease, and bury deeply. Of course, I have heard of many cures for "roup," and I have also known of a few cases where recovery took place without any treatment, but the risk of transmitting it to other birds is altogether too great to keep them upon the place.

W. J. BELL.

CRIPPLED PIGS.

I have a bunch of pigs about five months old, weighing about 130 lbs. each. About a week ago they became very lame, all within a day and a half. Legs considerably swollen; some became completely helpless. Two have died, while another lies still as though paralyzed in hind quarters. To-day, I notice two of another bunch about three months old have become lame. The pigs were fed on chops (oats and barley, mixed,) with milk and water. They have been allowed to run out half a day about twice a week. I opened one that died. Could find nothing of an unusual

It pays to patronize Advocate advertisers



No Missfires

When the rifle is perfect missfires are unknown with Dominion Ammunition—because we make our own primers and adapt them carefully to the powders which we use. (Our smokeless powders are made by the World famed firm of Nobel.)

Dominion Ammunition magazines perfectly in all popular fire-arms, and gives the best results.

Ask your dealer for Dominion Ammunition—if he won't supply you—write us—

Dominion Cartridge Co. Ltd.,
Montreal. 17-97

Lost Strayed or Stolen—One Cow

That is about what happens each year for the man who owns five cows and does not use a Tubular cream separator. He loses in cream more than the price of a good cow. The more cows he owns the greater the loss. This is a fact on which Agricultural Colleges, Dairy Experts and the best Dairymen all agree, and so do you if you use a Tubular. If not, it's high time you



did. You can't afford to lose the price of one or more cows each year—there's no reason why you should. Get a Tubular and get more and better cream out of the milk; save time and labor and have warm sweet skimmed milk for the calves. Don't buy some cheap rattle-trap thing called a separator that won't do any good. You need a real skimmer that does perfect work, skims clean, thick or thin, hot or cold; runs easy; simple in construction; easily understood. That's the Tubular and there is but one Tubular, the Sharples Tubular. Don't you want our little book "Business Dairymen," and our Catalog A.188 both free? A postal will bring them.

The Sharples Separator Co.
West Chester, Pa.
Toronto, Can. Chicago, Ill.



Steedman's SOOTHING Powders

Relieve FEVERISH HEAT.
Prevent FITS, CONVULSIONS, etc.
Preserve a healthy state of the constitution during the period of

TEETHING.

Please observe the EE in STEEDMAN.

CONTAIN
• NO
POISON

appearance, except that the liver was very black. Could you tell me what the trouble is, and how to remedy?

W. J. M.

Ans.—The trouble is probably due to high feeding and insufficient exercise. It seldom occurs in pigs having regular access to grass and the ground. Give equal parts Epsom salts, sulphur and powdered charcoal in the food, say a tablespoonful to each daily, and encourage them to go out on grass in a shady place, or in the evening. If they will not take the medicine in food, purge with 4 ounces salts as a drench, and follow up with five grains nux vomica twice daily. A good arrangement for drenching a pig is a shoe with a hole in the toe. Give slowly to avoid choking.

SECURING A PATENT.

Could you inform me where I could secure full information in regard to getting articles patented?

A SUBSCRIBER'S SON.

Ans.—Write Patent Division, Department of Agriculture, Ottawa.

SCURF ON PIGS—CHICKENS DYING.

1. I have a batch of pigs, four months old, that are covered with a curd, even down to their toes, leaving large cracks in the skin. They don't seem to grow any, no matter how they are fed. Will you please advise me what to do?

2. We had a young clutch of chickens hatched by a hen. We fed them on whole barley. They would droop their wings; took diarrhoea, and died.

3. Is grain, coarsely ground and soaked in cold water, better for hogs than ground fine and fed dry?

OLD SUBSCRIBER.

Ans.—1. If the pigs have been running outdoors, this trouble may be due to sunburn. We have known white pigs to suffer severely from this cause. Spraying them with a solution of one of the sheep dips should give relief, or an application of lard or raw linseed oil and sulphur rubbed on with a rag, would be good treatment.

2. See answer to similar question in this issue and last. The feeding does not appear to be best for your pig chicks. Small wheat, or ground oats, with the hulls sifted out, and damped, not wet into a slush, would be a better ration.

3. We should prefer the latter, fed dry, or in a thick batter.

TWISTED WIRE CABLE VS. IRON RODS.

Will twisted wire cable hold a building together as well as rods?

S. L. J.

Ans.—The question is indefinite. The diameter of the twisted cable is not given, neither is it mentioned whether the cable is of steel or iron wire, nor are the conditions given. It may be used to resist the thrust of rafters, or for trussing a tie-beam, providing it is made perfectly taut; but its use as a substitute for a tie-beam is very questionable. It can offer no resistance to wind pressure. If its use in this condition was intended I would say no! Iron rods would be preferable, as it would resist both tension and compression. The thickness of the rod will depend on the design of the roof, and, even in the same design, on the number of bolts, struts, etc.

HENS DYING.

Hens are dying. They have a peculiar disease. They sit around crouched down, with their tails hanging down; don't eat, and have blue combs, and in about half a day they die. Kindly tell me what disease they have and how to cure them.

V. H.

Ans.—I am unable to give a satisfactory answer. From the description given, I know of no disease in which the symptoms are similar to those mentioned in the letter. In cases of this kind, the only thing to do is to send two or three of the sick birds to a Bacteriological Laboratory for examination.

A MONTHLY HIRING.

If a man hires for \$20 a month, and works three months, and on the fourth, in the middle of the month, he wants to quit, if he notified the man he is employed with six or seven days ahead, can

SAVE YOUR HORSE

BOG SPAVIN
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No matter what you have tried—nor how many veterinaries have failed—get KENDALL'S SPAVIN CURE, use it as directed and it will give perfect results.

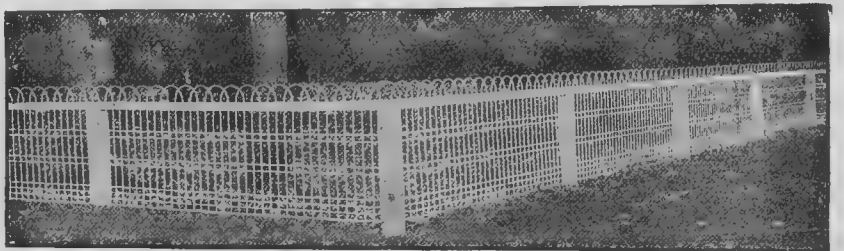
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The PAGE Wire Fence Co., Limited Walkerville Toronto Montreal St. John Winnipeg

he leave, or can he be compelled to stay until his month is out?

Ans.—The man cannot be compelled to stay until his month is out, but he cannot collect pay for the broken part of the month.

AN INTEREST-BEARING ACCOUNT.

A bought goods off B in 1906. B sent A bill of goods in October, 1906. A did not pay account, but got more goods in spring of 1907. Now, B has sent A bill for full account, charging A ten per

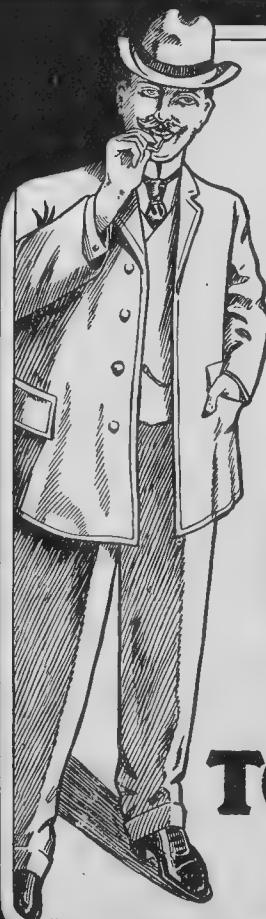
cent. interest on account of 1906. B has on his billheads, in small print, these words: "All accounts must be settled by cash or note, 15 days after rendered. Ten per cent, per annum charged on all overdue accounts."

1. Can B make A pay ten per cent. on account of 1906?

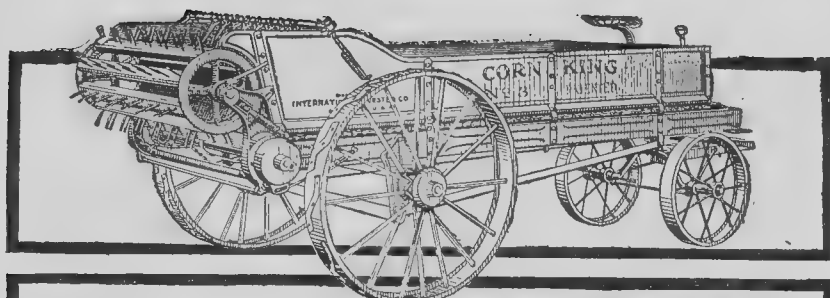
2. What is the lawful interest, when no agreement is made? SUBSCRIBER.

Ans.—1. Yes.

2.—Five per cent.



CHEW PAY ROLL BRIGHT PLUG TOBACCO



100 PER CENT MORE VALUE OUT OF THE MANURE PILE

WOULDN'T you like to get *all* the value out of the manure—the only fertilizer produced on the farm?

There's an alarming waste in the way manure is ordinarily handled. It is an easy matter to get double the value that most farmers are now getting from it.

Don't let it lie in piles in the barnyard indefinitely, to ferment and burn up from a third to a half of its fertilizing content.

Don't allow the rains to drain and wash away into the streams the rich liquids that are so valuable for plant food.

Don't haul it out and throw it in piles in the fields to waste.

Haul it out as it is produced, when it is fresh, while it is in its most valuable form, while it contains all its fertilizing elements, and distribute it evenly and thinly so that the land will receive every particle of its fertilizing content.

The Corn King return apron spreader and the Cloverleaf endless apron spreader are both made exceptionally strong and durable. The operation of each machine is controlled by a single

lever. The quantity of manure to be spread is regulated by means of this lever, the range of adjustment being from 3 to 30 loads.

Certain features are peculiar to these two spreaders and not found on other spreaders, such as the vibrating leveling rake which brings the manure up square and level to the beater, and the driving of the aprons by applying power to both sides, thus avoiding binding, friction and twisting, with consequent breakage.

The wheels are made of steel with broad tires, and the front wheels cut under to permit short turning. The draft is as light as can be secured in any spreader which provides the necessary strength to sustain the proper working apparatus.

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Call for catalogs and colored hangers illustrating and describing these machines, or write us for little booklet on wasteful practices on the farm, which you will be thoroughly interested in reading.

Call on our Local Agent or write nearest branch house for catalog.

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THE STORY THE MILK TOLD ME.

Did you have a drink of good, sweet milk this morning? Yes! Well, so did I and let me tell you the story it told me as it stood, white and creamy, in the tall glass.

You see, just as I was lifting it to my lips, it looked so foaming and fresh, that I said, "Good milk, do tell me where you came from before the milkman brought you to me?"

The milk bubbled up a little, then settled down quietly and said, "Yes I will tell you all about it. Before the milkman brought me to you, I stood in a bottle with ever so many other bottles, in a dark, nice cool box in the milkman's shop where we shivered and grew very cold."

"Then that is what makes you so cold now, is it?" said I.

"Yes," bubbled the milk "Well, before I lived in the milkman's shop. I was swimming around with ever so much other milk in a very large milk can, out in the country, waiting to be bottled and carried to the city."

"Oh!" I interrupted, "I didn't know you came from the country. Do you grow on trees or in the ground?"

The milk laughed so hard and shook so that it almost spilled itself over on the table-cloth, and was afraid it would break the glass. As soon as it could speak again, it said, "Dear me; didn't you know that before I was put into the milk-can I came right from the old 'bossy cow' who stands in the meadow by the river chewing her cud? But before that, and before I was white, creamy milk as you see me now, I grew tall and green on the river bank. No wonder you look astonished. Yes, I was grass for the good old cow to eat."

"And before you were milk you were grass! How funny! And, before that?"

"That is too long a story," rippled the milk, "and too difficult for me to tell you and for you to understand."

"But where do you go after I drink you?" I asked.

"Oh! after you drink me," answered the milk, "I change into rich, red blood, to make your body grow strong and healthy."

"Dear, good milk," said I, as I once more lifted the glass to my lips, "then I won't say good-bye to before I drink you, but I will thank our heavenly Father for making you, and thank the good old cow for giving you, and the kind milkman for bringing you to me."

Then I drank the cool, sweet milk, but I remembered its story to tell you.—
GERTRUDE H. NOYES, in "The Child's World."

GOSSIP.

CANADA'S TRADE IN 1907.

The Trade and Commerce Statement for 1907 was issued the other day. It shows a total trade for the year ending June 30th, 1907, of \$612,652,107. A few years ago we thought in exultation of the time when the trade of the Dominion would total half a billion dollars. To-day that point is passed by one hundred and thirteen million dollars and the time when our trade will make a round billion is coming easily into view. The Dominion is growing, growing vastly, growing more rapidly than it ever grew before and the figures given are tangible, irresistible and convincing evidence of the fact.

Our exports in 1907 were \$1,585,044 greater than in 1906, and the exports of that year were millions in excess of those of any year previous. 1907 therefore holds the record, but the indications are that it too is likely soon to be surpassed. In July, which is the first month in the new fiscal year, there were sent out no less than \$11,174,051 more exports than in July 1906. This is a significant fact. If it denotes anything it shows that the country's export business for 1908 is going to excel in volume anything previously attained. And if present prospects are worth considering it will. There are good grounds for believing that exports for the remaining months of the year will be heavy, and, while these months may not all show increases proportionate to that of the one just closed, their development will be substantial enough to ensure of large additions to the export trade of the year just commencing.

The import business for 1907 shows an even more remarkable increase than does the export trade, a greater ratio increase in fact, than is shown by the



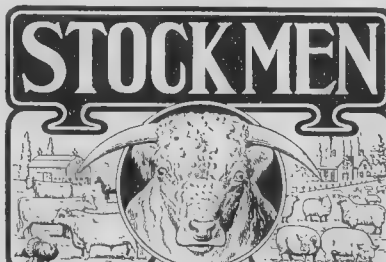
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"OSHAWA" GALVANIZED STEEL SHINGLES

Put them on yourself—common sense and a hammer and snips does it. The building they cover is proof against lightning, fire, wind, rain and snow. They cost less because they're made better, and of better material. Write us and learn about ROOFING RIGHT. Address

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Every organ of the body depends on the blood for force and vitality, and is but scantily served when the blood is impure. No remedy is so potent as a blood purifier or more rapidly produces new and healthy blood than

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which neutralizes the various poisons and restores the vitalizing power of this all important fluid.

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1/2 of an acre bearing strawberries.

500 raspberry bushes. 150 apple trees. 50 cherry trees. All the very best varieties.

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Small frame house and good frame barn.

\$100 per acre on easy terms.

Wolverton & Co.
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export business. This feature may be easily construed as unfavorable to the country, for if we are importing from foreign countries more than we are selling to them the balance of trade is against us and we are getting the short end of the deal. It must be remembered, however, that we are developing rapidly. We are undertaking public works of unusual magnitude. We are making heavy expenditures in railroad building, heavier perhaps than any nation in the world. Immigrants are coming to our shores in vastly increasing numbers, and in an era such as this it is only natural that our imports should increase in greater ratio than our export trade. Hence there is nothing startling in the discrepancy that at present exists between our incoming and out going business. The import figures on analysis show that a goodly portion of these excess imports are raw materials, brought in to be manufactured into utilities required for our domestic expansion, in which transformation they give work to our mechanics and add directly to the country's wealth.

SHOW-YARD JUDGES AND THEIR TYPES.

Leslie Smith, writing in the Horseman and Stockman, says:

A close study of the winning types of the various beef breeds for the past quarter of a century in the show rings brings to our minds the question, "Are we showing a better class of beef cattle than we did in years gone by?" When we think of some of the stars and champions shown in times past and in memory compare them with the present-day champions, we are forced to admit that all the different beef breeds are more nearly of one type than they were twenty-five years ago. Time was within the recollection of men living today when size and weight were the first consideration in determining the value of a beef animal. "What does he weigh?" was the first question asked a thousand times a day by as many visitors at the fairs as they paused to view the animals on exhibition. The same question can still be heard from the present-day visitor, although not quite so often as of old. Anyone who can recall the champion fat steer of 1884 at Chicago and compare him with the International champion of 1905 will admit that there was considerable difference in the type of those two animals.

We can take the circuit of shows which each year closes with the American Royal, at Kansas City. How many in the four principal beef breeds carried the same honors right along with them? True, there were some that were never turned down, but a good many went up and down. One case in particular, I recall, where a female won first place and went as low down as seventh, one of the same company being placed first that stood along with her when she was placed first.

Truly this judging is a conundrum but it is a very easy matter to criticize the judges, and the criticism is very often done by men who did not even lay hands on the animals and outside appearance is often deceptive. Put those same critics in the judge's position and they would be like a captain with his ship on the ocean without a compass. We know that many men have many minds, and animals don't all look the same to judges, but the shows are supposed to be for the education of the public, and a judge when called on to give his reason ought to be able to do so, and not be like Dr. Fell:

I do not love you, Dr. Fell,
The reason why I cannot tell;
But only this I know full well,
I do not love you, Dr. Fell.

But never advertise yourself by denouncing the judges. Remember they are very often selected or recommended by your different breed associations, and whether you got what was coming to you or not, the world will always believe that you got both an intelligent and honest rating, and their only comment, if any, will be, "Listen to that kicker."

Just a word as to the course of the judge in the performance of his task in the show ring. It is presumed that he knows his business from experience as a

breeder; that he has confidence in his own judgment and is honest and unbiased. It is well, after a general look over the animals, to draw out a few of the most likely and after a close and careful examination, have them walked around a circle to see how they look in motion, and then place them in their order of rating. Always keep your breed type in view, and if you commence with a certain type follow along down your class as far as you can go, so that your work will show uniformity. Your work then, if well done, will be an education to those who need to learn the best type of the breed. On the whole, most of the judges of the beef breeds who are up-to-date, look for nearly the same type of animal. Of course, there are different characteristics of the different breeds, but we all look for the same broad backs and smooth forms, thickly-fleshed loins, long level quarters, well-sprung ribs, thickly covered with natural flesh, mellow to the touch, yet firm and not flabby, and carrying coats of soft, silky hair—cattle that carry the bulk of their weight on their backs, where the highest-priced cuts of beef are found. We sometimes hear men describing cattle that suit them as low-down, blocky, wide as a wagon, and all the rest of it. That may be all right and it may not. I am not very sure but that you can get them too low-down. The nearer we put their bodies to Mother Earth, the more weight we will have under, and that means more cheap meat. Then, again, your very deep animals don't always carry as much width as they ought.

Some years ago, along with a noted cattleman, I was looking over a bull I had thought of purchasing. I remarked that I thought he was rather flat along the ribs. My friend said on account of his great depth it made him look flat. I said that the rule would work both ways, that on account of his flat ribs it made him look deep. Intelligent breeders have all been working with the same end in view, to get the greatest weight of the cuts that bring the highest price in the world's markets. The science and the art of breeding comes not from finespun theories, but it is largely an intuition which comes to the man who lives with his stock, studying their nature and individual characteristics, watching and directing their feeding and development.

HORTICULTURAL PROGRESS.

Prepared for the FARMER'S ADVOCATE London, Ont., by W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

THE USE OF FRUIT AS FOOD.

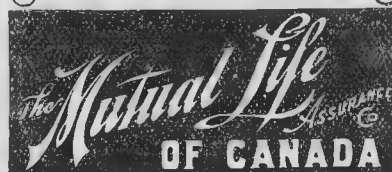
There is no doubt of the popularity of fruit in Canada, as enormous quantities of it are consumed annually. Its relative place as a food, however, is not, we believe, generally known. The appetizing and agreeable character of fruit is admitted by everyone, but most kinds of fruit are considered in the light of delicacies, or adjuncts to the regular diet. A bulletin recently issued by the Department of Agriculture, Washington, D. C., as Farmers' Bulletin No. 293, prepared by C. F. Langworthy, in charge of Nutrition Investigations, was written for the purpose of giving information on the "Use of Fruit as Food." At a time when there is so much ripe fruit in Canada, a review of this bulletin should prove interesting.

The use of fruit by man began in very primitive times, and its continued popularity is good evidence of its wholesomeness. For a time the wild fruit was depended upon by the people, but as civilization advanced and population increased, improvement took place and the fruits were cultivated to obtain greater supplies and better quality. Among the great variations in climates in the world the kinds of edible fruit which are produced are very numerous. In recent years the much-improved transportation facilities have made it possible to send fruits long distances in good condition, hence even in countries where a large variety of fruits can be grown the number which it is possible to obtain is increased still more by fruit shipped from other countries. Some examples of such fruit sent to Canada are the orange, lemon, grape fruit, banana, raisin and fig. The sea-

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is the easiest to turn, the easiest to wash, requires the fewest repairs, lasts the longest, and makes the most dollars for you. These are facts proved by the Empire in actual use. We want to give you the proofs and show you why. It's to your interest to investigate before you buy. Don't fail to get our new catalogue.
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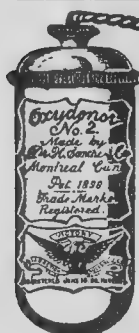
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Beware of fraudulent imitations. There is but one genuine OXYDONOR, and that has the name of the originator and inventor—Dr. H. Sanche—engraved in the metal.

Dr. H. Sanche & Co.

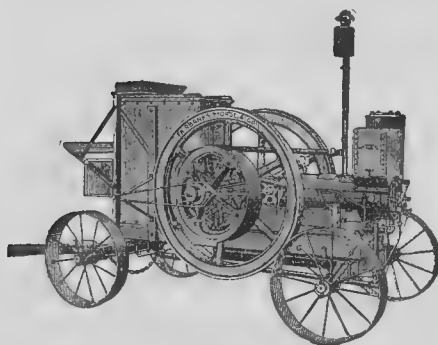
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Portable

GASOLINE ENGINES



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Canadian Fairbanks Co. Ltd.

92 Arthur St., Winnipeg

son also of such fruits as can be raised in Canada is much extended by importations from further south. It will probably not be many years before other fruits not yet found on our markets or seen at present but rarely will become quite abundant, owing to better means of storage and transportation. There are, then, fruits at all times of the year which suit every taste.

Results of experiments tried in California, North Dakota and at Harvard University in feeding human beings of different ages on a fruit and nut diet showed that in some cases at least: "The persons living on a fruit and nut diet apparently maintained their normal health and strength, and it is only fair to conclude that if for any reason such a course seems desirable it is perfectly possible to select a diet made up of fruits and nuts, which, for long periods at any rate, will supply the body with the requisite amount of protein and energy."

Analyses of fruits, a table of which appears in the bulletin, show that there is a marked difference in the food value of the fruit when fresh and dried. The apple, for instance, when fresh contains on an average 84.6 per cent. of water, but when dried only 26.1 per cent. of water. When fresh, one pound of apples has a fuel value per pound of only 200 calories, while when dried it has 1,350, and red raspberries 255 and 1,705, respectively. Of fresh fruits, bananas, grapes and figs are among the highest in food-value, one pound of the edible portion of fresh bananas having

green gooseberries, plums, pears and apples, when eaten raw, is less than is commonly thought, and the effects depend in a marked degree upon individual peculiarities. The green fruit was found to contain the same chemical compounds as the ripe fruit, though in different proportions. The injurious effects of raw unripe fruit, therefore, it appears do not depend upon chemical constituents, but rather the unusual proportions in which the constituents occur, and especially the larger percentage of hard cell tissue, which, if imperfectly masticated, it will readily be seen might be a source of digestive derangement. Possibly the excess of acid in the green fruit is also a cause of digestive disturbance. Cooked green fruit was found to be practically harmless, being especially palatable and wholesome when cooked with sugar."

Bananas should be eaten raw when quite ripe, as then the starch in them has largely changed to sugar, and they are more digestible. As a class, ripe fruits are, as a rule easy of digestion, and should be used in large quantities by everyone.

HACKNEYS AT AUCTION.

A correspondent asks us to publish the names and prices of the pure-bred Hackneys sold at the Rawlinson sale at the end of July, a service to our readers which we inadvertently overlooked in the hurry of exhibition work. We might say the sale was most satisfactory, Messrs. Rawlinson Bros., realizing



YEARLING SHORTHORN BULL.

First at Bath and West Show 1907; Shown by His Majesty The King.

a fuel value of 460 calories, 450; and figs, 380. The persimmon, which is not used much in Canada, is higher than any of them, having a fuel value per pound of 630 calories. It is interesting to compare the fuel value of a few of the staple foods. Potatoes have per pound a fuel value of 385 calories; high-grade wheat flour, 1,650 calories; white bread, 1,215; butter, 3,605. It will be seen that the fuel value of most fresh fruits is relatively small compared with bread and butter, but dried fruit compares favorably with them. The carbohydrates—compounds containing sugar—are the food constituents most abundant in fresh fruits, which are low in protein; the nut fruits, however, supplying this in considerable quantities. It is not only the actual food value of fruit which makes it a necessary part of the diet, but it has a place as an appetizing agency, making more palatable richer food. Canned, preserved and pickled fruits, jams and jellies, have all this effect.

DIGESTIBILITY OF FRUITS.

Experiments have been tried to determine the digestibility of fruits. Chemical analysis was made of fruits at various degrees of ripeness, and green fruit was caused to be eaten in considerable quantities to note its effect on both men and animals. "It appears from the results of the experiments that although unripe fruit is undoubtedly often harmful, particularly for children, the danger from such fruit, especially

several thousand dollars by auction above the valuation they put upon their stock. Bidding was decidedly lively although there were not many outside buyers present will be seen by the list of purchasers. The names of the horses, with their ages, purchasers and prices follow:

Stallions.—Commodore, age 10 years, J. W. Reed, Olds, Alta., \$850.00; Golden Hope, 3 years, D. W. Warner Edmonton, \$700.00; Drake, 2 years, Mr. Gerwin, \$415.00; Flashlight, years, J. W. Reed, \$1,000.00; Bunch Grass, 1 year, Mr. Townend, \$400.00;

Females.—Steeton, 20 years, J. W. Reed, \$330.00; Fimber Pride, 17 years, Mr. Trotter, \$515.00; Terrington Lily, 8 years, J. W. Reed, \$590.00; Caxtonious, 12 years, A. L. LeCain & Sons, \$405.00; Terrington Accident, 8 years, W. Moodie, Dewinton, \$760.00; Sundance, 10 years, J. R. Thompson, Calgary, \$425.00; Sunbeam, 9 years, R. Alford, \$575.00; Quickstep, 6 years, J. R. Thompson, \$405.00; Ada Adair, 5 years, Mr. McCallum, \$505.00; Thelma, 7 years, J. W. Reed, \$610.00; Merrythought, 6 years, D. White, \$600.00; Ruth, 8 years, J. R. Thompson, \$290.00; Clementine, 7 years, J. W. Reed, \$500.00; Rachel, 5 years, J. W. Reed, \$420.00; Clairvoyante, 12 years, J. R. Thompson, \$310.00; Tabitha, 6 years, J. W. Reed, \$425.00; Witch, 5 years, A. L. LeCain & Sons, \$200.00; Slippery Jane, 14 years, J. W. Reed, \$150.00; Patience 12 years, Mr.

Stomach Experts

may disagree as to the exact cause of indigestion, but when food distresses the stomach, all disturbing elements are quickly quieted and removed by a dose or two of

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Cross, Calgary, \$300.00; Galena, 12 years, W. A. Jackson, \$395.00; Snorer, 12 years, W. Modie, \$210.00; Playtul, 11 years, J. R. Thompson, \$445.00; Red Tail, 11 years, Mr. Cross, \$300.00; Bay Jane, 11 years, J. W. Reed, \$350.00; Galena, 11 years, S. Inglis, Calgary \$130.00; Bramble, 8 years, J. W. Reed \$400.00; Primrose, 8 years, J. W. Reed, \$295.00; Poppy, 7 years, J. W. Reed, \$440.00; Rebellious Susan, 6 years, J. R. Thompson, \$250.00; Squaw, 5 years, J. W. Reed, \$150.00; Dorothy, 17 years, Mr. Passlow, \$260.00; Popsy, 16 years, J. W. Reed, \$220.00; Frisk, 16 years, J. R. Thompson, \$330.00; Galena, 16 years, Mr. Webster, \$320.00; Clumby, 16 years, Mr. Adams, \$165.00; Queenie, 17 years, J. W. Reed, \$150.00; Queen, 16 years, J. W. Reed, \$300.00; Sarah, 14 years, Mr. Adams, \$200.00; Belle, 2, 14 years, Mr. Moore, \$260.00; Belle, 3, 12 years, J. R. Thompson, \$200.00; Belle, 4, 10 years, J. W. Reed, \$255.00; Rosalind, 10 years, Mr. Adams, \$165.00; Hippie, 10 years, Mr. Moore, \$175.00; Empress, 9 years, Jas. Mitchell, Victoria, B. C., \$390.00; Czarena, 8 years, Jas. Mitchell, \$235.00; Merry Lass, 8 years, J. W. Reed, \$205.00; Free Trade, 7 years, Mr. Moore, \$270.00; Bay Kitty, 13 years, Mr. Adams, \$100.00; Sweetbriar, 4 years, J. W. Reed, \$400.00; Fairy Land, 4 years, J. W. Reed, \$500.00; Haughty, 4 years, J. W. Reed, \$400.00; Starlight, 4 years, J. W. Reed, \$450.00; Gamble, 4 years, J. W. Reed, \$230.00; Gaiety, 4 years, J. W. Reed, \$200.00; Silverdale, 4 years, J. W. Reed, \$285.00; Florentine, 4 years, J. W. Reed, \$225.00; Grace, 4 years, Mr. Brookes, \$245.00; Busybody, 4 years, Mr. Bevrige, \$160.00; Moonshine, 3 years, W. Moodie, \$250.00; Istar, 3 years, Mr. Bevrige, \$270.00; Silvercross, 3 years, Mr. Tweed, \$150.00; Vanity Fair, 3 years, Mr. Inglis, \$200.00; Creeping Kate, 3 years, Mr. Hargrave, \$180.00; Blazes, 3 years, J. W. Reed, \$160.00; Ariadne, 2 years, Mr. McCallum, \$155.00; Miriam, 2 years, J. W. Reed, \$150.00; Sairy Gamp, 2 years, J. W. Reed, \$130.00; Pop, 2 years, Mr. Thompson, \$135.00; Wheel of Fortune, 2 years, J. J. McHugh, \$225.00; Witchcraft, 2 years, Mr. Passlow, \$100.00; Princess, 12 years, J. W. Reed, \$205.00; Daisy, 10 years, S. Inglis, \$200.00; Lady Wilton, 12 years, J. R. Thompson, \$215.00; Twinkle, 12 years, J. J. McHugh, \$200.00.

A "NEW BREED" OF HORSES.

The press agent of the Iowa Agricultural college has us on his mailing list, hence we received simultaneously with the agricultural papers all over the continent, an article entitled "A New Breed of Draft Horses." Anything so startling in connection with draft horses as the discovery of a new breed will generally stampede us through several pages of circularized "copy" and so we read and learned. Between the lines we read that Prof. Kennedy had made up his mind that Prof. Carlyle, of Colorado, was not going to be the whole sensation with his work of making a new breed of carriage "All-American" horses and that he had hit upon the thing that would make Prof. Kennedy look as big as an Iowa corn field; a new breed of draft horses! better suited to American conditions than the present known draft breeds, grey in color, as big as Shires and with as fine quality as Clydesdales.

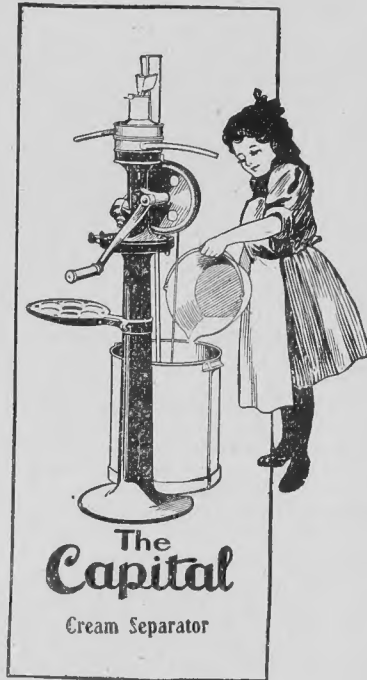
The reading matter intimates that the breed is founded, started, here in fact, for Prof. Kennedy, (with the assistance of Mr. Ogilvie, superintendent of the horse department of the International), but this part is scratched out, picked the individuals of this new breed "from the cream of European studs." The "new breed" consists of a Clydesdale and a Shire stallion, two Clydesdale and four Shire mares and perhaps, it may be necessary to attain just the ideal color, action, style, bone, feather, weight, constitution, conformation, disposition, and a few other details to use some Percheron blood.

The federal government stands half the cost and the state of Iowa the balance including the ingenuity to guide the destinies of the new breed.

We know what the Clydesdale breeders say—"color doesn't matter, fodder makes weight; and they can't beat the Clyde bone."

Four Cows Will Earn You MORE Money Than EIGHT Cows Earn You Now

Tell me to show you how to get \$38.25 a year more money out of every cow you keep. Make



me prove that four cows AND a Capital Separator will actually earn you—YOU, PERSONALLY—more money in cold cash profits than an EIGHT-cow herd and no Capital Separator. Don't take my say-so for it. Don't wrap yourself up in your own belief that it can't be done. It CAN be done, and I can PROVE it to you, in a practical, hard-sense fashion, with figures and facts that you won't want to dodge. Just write to me and see.

Let's get the thing clear to start with. Here is what I say I can show you: That with four good cows

and my method of separating, making butter—and selling butter—you can make more money in one year than eight cows will make you without my method.

If I do that,—if I do show you a difference of nearly forty dollars profit a year on every cow you keep,—then I want to talk business with you. I don't want a cent of your money until you are satisfied that I have made good every word I say and everything I promise. I don't want to sell you a Capital Separator until you ask me to,—I shan't importune you, nor bother you. All I want to know is your name and address, and how many cows you keep. When I get these facts, I'll tell you some things you haven't heard before. I'll show you not only why you need a Capital Separator, but why you can make more money by my method of selling butter than you'll make any other way. It won't be all separator talk I'll talk to you,—you've read reams of separator argument, but you haven't heard yet about the right way to make butter and the right way to SELL butter. Tell me to tell you about it,—there's nothing to pay.

Why don't I tell you right here in print? Simply because I am not giving "blanket" advice. What might be a good plan for a man in Ontario wouldn't work in Manitoba,—and I propose to advise each dairyman according to his location and other vital details. Naturally, I want to sell Capital Separators. I am no philanthropist. But I will sell them faster because I can tell people how to make them pay,—and that's something new in this business.

I don't care what your experience with dairying has been, nor what with separators. You may have what you think is the best separator there is. Or you may believe, as many do, that there isn't any real profit in dairy-farming. I can show you where you're wrong in either case. Do I get the chance to do that? Will you listen to the mere, sheer, downright facts? Just write to me and say so.

I don't care whether you feel able to buy a Capital Separator or not. It won't be a hard matter, once you get to the buying point, to make terms with me. Some of my friends—I don't consider them merely my customers—take three years' time to pay in. Some of them pay in three months. Doesn't make any difference to me, because I know, and I can prove to you, that my Separator will buy itself the first year you have it. It will save you enough money, and trouble, to pay for itself twice over in that time. And I can prove that, too,—just write and ask me to.

I've got a machine here, and a method, that will open your eyes to what there really is in keeping cows for profit. Maybe you are one of the few that know that already. Even if you are, you won't be any the poorer for reading what I'll write you. Let me tell you about the easiest separator to run you ever saw,—the easiest to buy,—the separator that skims cleanest and does it easiest,—the one with the really-low-down can,—and about the method that makes more butter, makes better butter, and gets better prices for it the whole year round. Just write to me—address as follows:

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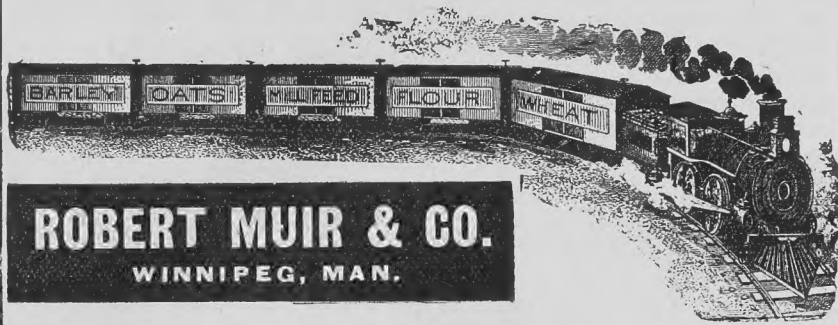
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HOW DRUGS WEAKEN THE HEART

So many people are doping their stomachs with drugs and never stop to think of the harm that will come of it. Constant drugging always weakens the heart.

You hear of a great many deaths due to heart failure, but you never hear of what makes the heart fail. The heart never fails without a reason. Find a reason and you will find the actual cause of death. I say that it is nearly always exhaustion of vitality, caused by drugging. The heart stops because the power that runs it is shut off. To trace this cause correctly I would say that the consumption of food in the stomach generates carbonic heat, which is electricity. Carried into the nerves it becomes nerve force, which is the motive energy of the heart. Naturally, if the heart does not receive a sufficient quantity of this nerve force its action will become weaker, and, like the engine whose steam is run down will stop altogether. That is heart failure.

Now, strong drugs weaken the stomach so that it cannot generate enough of this force, and a weakening of the heart's action results.

The reason any organ fails to do its work is because it lacks strength. If there was any nourishment in drugs they might bring about a healthy change, but you know there is not. Drugs are drugs, stimulants, narcotics, antidotes, poisons, not food. Food is needed to build to build up new strength. Electricity is nerve food—nerve life. It soaks into your nerves and vitals just like water soaks into a sponge. It warms and strengthens the parts which drugs cannot reach.

Electricity is a relief from the old system of drugging. It does by natural means what you expect drugs to do by unnatural means. It is Nature's way of curing disease, for it gives back to the nerves and organs the power they have lost, which is their life.



I believe in finding the cause of every ailment and removing it. If it is in the stomach, I restore the power there; if in the nervous system, I build up the nerve force; in the kidneys, the blood or the organs of generation, I find the cause and supply to the body the needed help, and after I have removed the cause Nature will cure the disease.

Dr. McLaughlin's Electric Belt is easily and comfortably worn next to the body during the night, and gives out a continuous stream of that strength-building, nerve-feeding force which is the basis of all health. Dear Sir,—The trouble for which I purchased your Belt has entirely disappeared. It was only after a great deal of hesitancy and enquiry from patients that I bought one of your Belts, and I am now glad that I did. My back is perfectly well, and I never was so strong or felt as well as I do now. Geo. A. Stark, Owen Sound, Ont.

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Wit and Humor.

THE BABY'S TURN NOW.

On a very hot afternoon, last summer a nurse in the employ of a Brooklyn family had been ordered to take the baby in the public park opposite the family's house. The nurse wheeled the baby's go-cart up and down under the shade of the trees for an hour or so, when a voice from the top of the house vainly endeavored to summon the servant to return. Whether the nurse was sulky, or whether she did not care to return home at that hour, does not appear but she continued her slow and stately parade with the go-cart.

Finally, in answer to the repeated and anxious calls for her to return, she did so. As she approached the door, the mistress of the place greeted her with: "Why didn't you come when I first called?"

"I didn't hear you, mum," was the response.

"Well," continued the mistress, with a smile, "you may now take the baby for a ride. It may interest you to know that, during the greater part of the afternoon, you have been wheeling Jenny's doll in the park."

Scientists have discovered that the memory is stronger in summer than in winter. Among the worst foes of memory are too much food, too much physical exercise, and, strangely enough too much education.—*Triune*.

A young fellow bought 2,000 extra fine cigars and had them insured for their full value, smoked them up and demanded the insurance, claiming that they had been destroyed by fire. The case was taken to court and the judge decided in favor of the young man. The insurance company then had the young man arrested for setting fire to his own property, and the same judge ordered that he pay a fine and go to jail for three months.—*Higginsville Mo. Leader*.

Trumbell—You look relieved.

Braley—I am, I've just paid all my debts.

Trumbell—How did you manage it? Braley—Oh, I borrowed \$1,500.—*Somerville Journal*.

"That little minnow," said the first fish, "seems to have got a big opinion of himself all of a sudden."

"Yes," replied the other, "he managed to wriggle off a hook this morning and then heard the fisherman bragging about his size."—*Philadelphia Ledger*.

De Riter—Wouldn't you like to read this new book of mine?

Kandor—No, thank you.

De Riter—It's Cleverly's latest novel. I just bought it.

Kandor—O, let's have it. I thought you meant you wrote it.—*The Catholic Standard and Times*.

"Jane," asked Mrs. Hiram Offen, "are the eggs boiling?"

"Most assuredly not, madam," replied the new servant, lately from Boston, "but I may safely say the water in which the eggs are immersed is."—*Philadelphia Press*.

Professor Brander Mathews, the essayist, enlivened with an anecdote a Shakespeare-Bacon discussion at the Player's Club in New York.

"A literary woman," said Professor Mathews, "said one night to her husband:

"When I get to heaven I am going to ask Shakespeare whether or not he wrote those plays?"

"The husband chuckled.

"Maybe he won't be there," he said.

"Then you ask him," said the lady,"

THE SHORTEST SERMON.

One of the shortest sermons on record is the one which Dean Swift preached before a charitable society. After announcing his text, "He that giveth to the poor lendeth to the Lord," the preacher simply said: "Now, my brethren, if you are satisfied with the security, down with the dust." He then sat down while the ushers took the collection. It was unusually large.

Newfoundland's cod fisheries gave employment to 70,000 persons in 1905, during which year 38,037,328 pound valued at £241,386, were shipped from Labrador to Europe. These represented about two-thirds of the catch on the Labrador coast, the remainder being taken to Newfoundland for curing.

A Baltimore man tells of an address made to some school children in that city by a member of the board of trustees: "My young freinds," said the speaker "let me urge upon you the necessity of not only reading good books but also of owning them, so that you may have access to them at all times. Why, when I was young man, I used frequently to work all night to earn money to buy books, and then get up before daylight to read them!"

"Dr. Besom is once more among us for a brief season," wrote the chronicler of Northby's social and religious life. "He says and does exactly as he thinks right, without regard to the opinion or belief of others.

"His wife is not with him."—*Youth's Companion*.

"It's dreadful queer," said the housewife, "that the potatoes you bring me should be so much bigger at the top of the sack than they are at the bottom."

"Not at all, mem," said the honest farmer; "it's jest this a-way. Potatoes is growin' so fast jest now that by the time I dig a sackful the last one dug is ever so much bigger'n the fust ones."—*Harper's Weekly*.

Rooter—If they win this game, by George, it'll be eight straight!

The Inevitable Girl—Eight straight? Why, how absurd, Harry! Eight is the cookedest of all the figures.—*Chicago Tribune*.

While driving along a country road a man saw the roof of a farmer's house ablaze. He gesticulated and called to the farmer's wife, who was calmly standing in the doorway:

"Hey, your house is afire!"

"What?" she bawled out.

"I say your house is afire!"

"What did y' say? I'm a little deaf!"

"Your house is afire!" again yelled the man at the top of his lungs.

"Oh, is that all?" calmly replied the woman.

"It's all I can think of just now," responded the man in a rather weak voice as he drove on.

Senator Tillman not long ago piloted a plain farmer-constituent around the capital for awhile and then having some work to do on the floor, conducted him to the Senate gallery.

After an hour or so the visitor approached a gallery doorkeeper and said: "My name is Swate. I am a friend of Senator Tillman. He brought me here and I want to go out and look around a bit. I thought I would tell you so I can get back in."

"That's all right," said the doorkeeper, "but I may not be here when you return. In order to prevent any mistake I will give you the password so you can get your seat again."

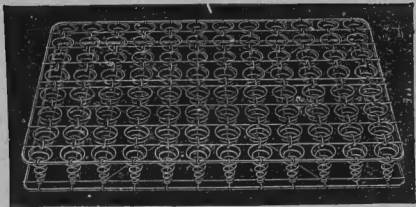
Swate's eyes rather popped out at this. "What's the word?" he asked.

"Idiosyncrasy."

"What?"

"Idiosyncrasy."

"I guess I'll stay in," said Swate



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W. O. WRIGHT, Managing Director
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The soil is the finest grade of fruit soil. The location is perfect and the price is remarkably low. There are only SEVEN (7) blocks, as but seventy acres have been included in the subdivision.

If you are interested, write us.

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Miscellaneous

THE EXTRAVAGANCE OF OUR FOREFATHERS.

There are many things our ancestors did that we cannot approve of, but perhaps nothing shocks us more, when we think of it, than their wasteful habits. The modern man supports his family on what his grandfather threw away. It appears that once they butchered animals for their meat. To our economical minds this is as shocking as to read of hunters on the Western plains who slaughtered buffalo by the thousands to get their hides. Nowadays the packers could afford to give away the meat because they made more money out of what used to be mostly refuse. Still, they are not satisfied. They keep experts at work all the time shortening the process so fewer people need spend their time at this necessarily disagreeable work. Their chemists run after the doctors, crying, "Here's a useless organ. Can't you use it in your business?" And the doctors hunt around until they find a use for it, in stopping blood, curing cretins, digesting banquets or something else.

The dump-heaps of our ancestors are our mines. We go over them and pick out the precious metal they left, the gold, uranium and radium. Whenever they made anything they were just as likely as not to throw away the most valuable part. When they made soda they let the chlorine escape into the air, contaminating that, instead of utilizing it to make bleaching powder for purification. When they made charcoal, they let the alcohol and the vinegar and a hundred valuable medicines and perfumes go up in smoke. It was like burning up a whole drug store. When they made iron they let the slag go to waste instead of making cement for walks and bridges and houses out of it. When they picked the seeds out of cotton they threw them away, never thinking how much salad oil could be got out of them. When they made beer they let the carbonic acid go off into the air instead of saving it, as the brewers do now, to make soda-water for the people who will not drink beer.

The farmer's wife who put her wood ashes into a wooden hopper in the back yard thought she was economical, but when she made her soap she threw away the glycerine, never dreaming that she might blast up subways with it or blow up a czar. Into the fireplace were thrown great logs, enough to print a Sunday edition of a yellow journal. Perhaps a hundredth part of 1 per cent. of the heat it produced reached the joint turning on the spit or the shivering limbs of the household. The ancient Chinese way of roasting pig was miserly in comparison.

When they used coal they burned it right up under the boiler in making steam. If they had had any ideas of economy they would have made gas of it and exploded that in the cylinder, conveying power from a central plant with little leakage by electric wires. When they made gas for lighting they did not even take the trouble to save the ammonia and the sulphur. To celebrate a political election the boys were allowed to burn barrels of tar, sending up in nasty smoke finer perfumes than attar of roses, flavors of more fruits than the botanist knows, dyes of more colors than there are in the rainbow, and medicines that cure all the diseases that the flesh has since become heir to.

Nowadays, when we practice our stricter economies, partly on account of their prodigality, our filial respect for them is impaired by the thought of their lack of consideration for us, their heirs. We would not mind their waste of time and labor, foolish as it seems, if they had not also squandered the world's capital, its natural resources.

Those were the days when pins were saved, when carpenters stooped to pick up dropped nails, and scraps of paper were pasted together to make notebooks. If they had had forethought they would not have shaped pins and nails expensively by hand and made paper out of such valuable material as rags. Penny wise and pound foolish our grandfathers were. Of course, we must remember that they did not know any better, but to read of their carelessness is like

watching a child burn up the paper money that he has found in his father's desk.—N. Y. Independent.

Speaking with a young lady, a gentleman mentioned that he had failed to keep abreast to the scientific advance of the age. "For instance," he said, "I don't know at all how the incandescent electric light which is now used in some buildings is produced."

"Oh, it is very simple," said the lady. "You just turn a button and the light appears at once."—*Tit-Bits*.

Mrs. Jaggsby—I was very much surprised at the condition in which you came home last night.

Jaggsby—There you go again! I'd be willing to swear that I came home perfectly sober.

Mrs. Jaggsby—So you did; that's what surprised me.—*Illustrated Bits*.

The imaginary invalid, who fancies he has all the diseases in the books, or, at least, all the interesting ones, had called in a young physician who had a considerable reputation.

He was telling the doctor what he thought was the trouble with him, when the doctor ventured to disagree with his diagnosis. For a moment he was speechless.

"I beg your pardon," he said, at last, in a haughty way. "But it isn't for a young physician like you to disagree with an old and experienced invalid like me."

And he went out to seek another doctor.—*Answers*.

"I tell you," said the young sub-editor of a local paper, "that the editor isn't in, and I'm not going to tell you again. If you have anything for him you can leave it with me."

"Very well," said the caller, taking off his coat. "I came in to give him a good sound thrashing, but I'll give it to you instead."—*Modern Society*.

The telephone girl and the ledger clerk, to whom she had promised her heart and hand, were seated by the fireside, dreaming of the happy days when they would be one. From one little detail to another the talk finally drifted to the subject of lighting fires in the morning. On this point the young man was decided. He stated as his firm opinion that it was a wife's place to get up and light the fires, and let the poor, hard working husband rest. After this declaration there was silence for about a second. Then the girl thrust out her finger, encircled by a ring, and murmured, sweetly but firmly:

"Ring off, please. You have got the wrong number?"

THE BANK OF ENGLAND.

London, Oct. 12.—The weekly statement of the Bank of England shows the following changes: Total reserve, decrease £2,112,000; circulation, decrease £394,000; bullion, decrease £2,505,590. Other securities increased £142,000; other deposits increased £2,171,000; public deposits decreased £3,562,000; notes reserve decreased \$2,207,000. The proportion of the banks reserve to liability this week is 50.45 per cent compared with 38.50 per cent last week.

A good story is told of Mr. Barlow's experience several years ago with some Democratic friends who had gone to his summer house at Glen Cove, on Long Island to spend the summer with him. The party was made up of the late Governor Fildes, Mr. Charles A. Dana (then editor of the New York Sun), Mr. Manton Marble, editor of the New York World, Mr. Smith, Mr. Weed (since become prominent in politics), and one or two other men of position. After dinner his guests made their way to the billiard-room and began to play. Before long Mr. Fildes confessed to his sleepiness, and proposed to go to bed. Mr. Barlow accompanied him, with the intention of returning later to his pleasure seeking friends; but when he got upstairs he came to the conclusion



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SYNOPSIS OF CANADIAN NORTH-WEST HOMESTEAD REGULATIONS

ANY even numbered section of Dominion Lands in Manitoba, Saskatchewan and Alberta, excepting 8 and 26, not reserved, may be homesteaded by any person who is the sole head of a family, or any male over 18 years of age, to the extent of one-quarter section of 160 acres, more or less.

Entry must be made personally at the local land office for the district in which the land is situated.

The homesteader is required to perform the conditions connected therewith under one of the following plans:

(1) At least six months' residence upon and cultivation of the land in each year for three years.

(2) If the father (or mother if the father is deceased) of the homesteader resides upon a farm in the vicinity of the land entered for, the requirements as to residence may be satisfied by such person residing with the father or mother.

(3) If the settler has his permanent residence upon farming land owned by him in the vicinity of his homestead, the requirements as to residence may be satisfied by residence upon the said land.

Six months' notice in writing should be given to the Commissioner of Dominion Lands at Ottawa of intention to apply for patent.

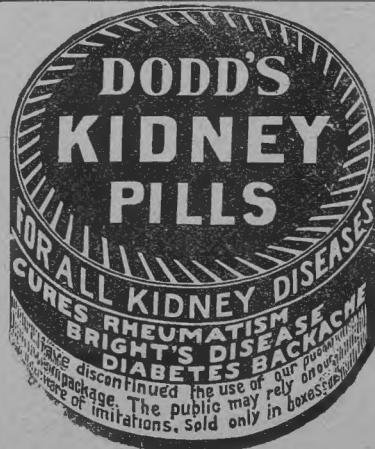
W. W. CORY,

Deputy of the Minister of the Interior.

N. B.—Unauthorized publication of this advertisement will not be paid for.

that as his guests knew their rooms, he would follow Mr. Fildes's example.

He did so and slept soundly until after daylight on Sunday morning. On awakening to his surprise, he heard the rattle of the billiard-balls. He rose at once and went to the billiard-room, where the game had proceeded without interruption through the whole night. He found at the door—the only exit—his faithful but fierce bulldog standing guard. The guests had made one attempt after another to get away to bed, but the bulldog had successfully prevented their departure, and there had been nothing else to do through the long watches of the night but return to their cues and the billiard table.





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